

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 14,6 A 4
 Edition : 05.11.86
 Superceeded : -
 Calibrating oil : ISO-4113

Combination no. : 0 401 848 755

Injection pump
 Pump designation : PE8P110A32OLS3802-10
 EP type number : 0 411 818 710
 Governor
 Governor design. : RQ300/1150PA437-3
 Governer no. : 0 421 801 230

Customer-spec. information
 Customer : DAIMLER-BENZ

Engine : OM422

1st version kW : 184.0
 Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Overflow
 quantity min. 1/h: 100...120

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
 x Wall thickness
 x Length mm : 6.00X1.50X600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values ----

START OF DELIVERY
 Test pressure, bar: 25...27

Prestroke mm	: 4.00...4.10
	: (3.95...4.15)
Contr.-rod trav.mm	: 9.00...12.00
Cam sequence	: 8- 7- 2- 6- 3- 5-
	4- 1

SD ang. spacing°CS: 0-45-90-135-180-225-
 270-315
 Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 8

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 11.00...11.10

Del.quantity cm3/ : 11.3...11.5
 100H.: (11.0...11.7)

Dispersion cm3/ : 0.4
 100H.: (0.8)

2nd speed 1/min: 300.0
 Contr.-rod trav. m: 8.5...8.7
 Del.quantity cm3/ : 1.4...2.0
 100H.: (1.1...2.2)
 Dispersion cm3/ : 0.4
 100H.: (0.7)

SLEEVE POSITION

Control-lever position
 Degree: -1
 Speed 1/min: 650
 Cont.-rod travelmm: 13.20...14.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version
 Speed 1/min: 1150
 Del.quantity cm3/ : 113.0...115.0
 1000H.: (110.5...117.5)
 Dispersion cm3/ : 4.00
 1000H.: (8.00)

HIGHEST RATED SPEED

Setting point:
 Speed 1/min : 650
 Contr.-rod trav.mm: 13.6

Testing:
 1st c-rod trav.mm : 10.00
 Speed 1/min : 1195...1210
 2nd c-rod trav.mm : 4.00

Speed 1/min : 1260...1290
4th speed 1/min : 1350
C-rod trav.mm : 0.00...1.50

LOWEST RATED SPEED I
Setting point w/out aux. spring
Speed 1/min : 300
Contr.-rod trav.mm: 7.1

Testing:
Speed 1/min : 100
C-rod trav.mm min : 8.50
Speed 1/min : 300
C-rod trav.mm : 7.00...7.20
C-rod trav.mm : 2.00
Speed 1/min : 400...440

TORQUE CONTROL
Torque-control curve - 1st version
1st speed 1/min : 1150
C-rod trav.mm : 11.00...11.10
2nd speed 1/min : 600
C-rod trav.mm : 11.20...11.40

FUEL-DELIVERY CHARACTERISTICS
Speed 1/min : 600
Del.quantity cm³/ : 92.0...96.0
1000H.: (89.0...99.0)
Dispersion cm³/ : 6.00
1000H.: (9.00)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : PEN 6,1 N

Edition : 14.11.86

Superceeded : 11.85

Calibrating oil : ISO-4113

Combination no. : 0 403 476 044

Injection pump

Pump designation : PES6MW100/320RS1132

EP type number : 0 413 406 124

Governor

Governor design. : RSV650...750MW4/311-
1

Governer no. : 0 420 085 023

Customer-spec. information

Customer : VOLVO-PENTA

Engine : TD 61 G

1st version kW : 83.0

Speed 1/min: 1500

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 2.90...3.00
: (2.85...3.05)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 11.30...11.40

Del.quantity cm3/ : 8.2...8.4

100H.: (8.0...8.6)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 650.0

Contr.-rod trav. m: 6.3...6.4

Del.quantity cm3/ : 1.7...2.1

100H.: (1.5...2.2)

Dispersion cm3/ : 0.35

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm3/ : 82.0...84.0

1000H.: (80.0...86.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 33...41

Testing:

1st c-rod trav.mm : 10.30

Speed 1/min : 750...760

2nd c-rod trav.mm : 4.00

Speed 1/min : 765...795

4th speed 1/min : 950

C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever
position degrees: 27...35

Setting point w/out aux. spring

Speed 1/min : 650

Contr.-rod trav.mm: 5.8...5.9

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.00

Speed 1/min : 650

C-rod trav.mm : 5.80...5.90

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : PEN 6,1 P 2

Edition : 28.10.86

Superceded : 11.85

Calibrating oil : ISO-4113

Combination no. : 0 403 476 045

Injection pump

Pump designation : PES6MW100/320RS1132

EP type number : 0 413 406 124

Governor

Governor design. : RSV650...750MW4/311-
2

Governer no. : 0 420 085 024

Customer-spec. information

Customer : VOLVO-PENTA

Engine : TID 61 KG

1st version kW : 102.0

Speed 1/min: 1500

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6.00x2.00x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.

per values -----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 2.90...3.00

: (2.85...3.05)

Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 12.80...12.90

Del.quantity cm3/ : 11.3...11.5

100H.: (11.1...11.7)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 650.0

Contr.-rod trav. m: 6.2...6.3

Del.quantity cm3/ : 1.7...2.1

100H.: (1.5...2.2)

Dispersion cm3/ : 0.35

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm3/ : 113.0...115.0

1000H.: (111.0...117.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 34...42

Testing:

1st c-rod trav.mm : 11.80

Speed 1/min : 750...760

2nd c-rod trav.mm : 4.00

Speed 1/min : 780...810

4th speed 1/min : 950

C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 27...35

Setting point w/out aux. spring |
Speed 1/min : 650
Contr.-rod trav.mm: 5.7...5.8

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.00
Speed 1/min : 650
C-rod trav.mm : 5.70...5.80

SET IDLE AUXILIARY SPRING
Speed 1/min : 650
Contr.-rod trav.mm: 6.20...6.30

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 6,0 D 18

Edition : 14.11.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 403 476 057

Injection pump

Pump designation : PES6MW100/720RS1129-
2

EP type number : 0 413 406 140

Governor

Governor design. : RSV300...1300MWOA324

Governor no. : 0 420 085 079

Customer-spec. information

Customer : DB

Engine : OM 366 LA

1st version kW : 150.0

Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 3.70...3.80
: (3.65...3.85)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1280

Contr.-rod trav.mm: 11.90...12.00

Del.quantity cm3/ : 9.3...9.5

100H.: (9.1...9.7)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm3/ : 0.8...1.4
100H.: (0.7...1.5)

Dispersion cm3/ : 0.35

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1280

Charge press. hPa: 900

Del.quantity cm3/ : 93.5...95.5
1000H.: (91.5...97.5)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 56...64

Testing:

1st c-rod trav.mm : 10.90
Speed 1/min : 1320...13302nd c-rod trav.mm : 4.00
Speed 1/min : 1385...14154th speed 1/min : 1450
C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30
Setting point w/out aux. spring
Speed 1/min : 300
Contr.-rod trav.mm: 5.9...6.1

Testing:
Speed 1/min : 100
C-rod trav.mm min : 7.60
Speed 1/min : 300
C-rod trav.mm : 5.90...6.10

SET IDLE AUXILIARY SPRING
Contr.-rod trav.mm: 2.00

compensator (LDA,ADA,ALDA)

1st version
Setting
Speed 1/min : 500
Pressure hPa : -
Contr.-rod trav.mm: 9.90...10.00

Measurement
Speed 1/min : 500

1st pressure hPa : 175
C-rod trav.mm : 10.40...10.60
2nd pressure hPa : 300
C-rod trav.mm : 11.20...11.40
3rd pressure hPa : 900
C-rod trav.mm : 11.90...12.00

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 900
Speed 1/min : 750
Del.quantity cm³/ : 83.5...86.5
1000H.: (81.0...89.0)
Dispersion cm³/ : 5.00
1000H.: (7.00)
Charge press. hPa : -
Speed 1/min : 500
Del.quantity cm³/ : 46.5...48.5
1000H.: (44.5...50.5)

Remarks:
Check electrically unlatched starting
fuel delivery (EES) with 24 volt.

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 8,7 P 2

Edition : 12.09.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 403 546 008

Injection pump

Pump designation : PE6MW100/720RS1126

EP type number : 0 413 506 101

Governor

Governor design. : RQ300/1250MW12-2

Governer no. : 0 420 082 020

Customer-spec. information

Customer : DB

Engine : OM360A

1st version kW : 147.0

Speed 1/min: 2500

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 3.80...3.90
: (3.75...3.95)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/min: 1250

Contr.-rod trav.mm: 12.90...13.00

Del.quantity cm3/ : 9.7...9.9

100H.: (9.5...10.1)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 8.6...8.7

Del.quantity cm3/ : 1.0...1.4

100H.: (0.7...1.6)

Dispersion cm3/ : 0.35

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -2

Speed 1/min: 650

Cont.-rod travelmm: 13.10...13.90

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Del.quantity cm3/ : 97.0...99.0

1000H.: (95.0...101.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 42...50

Setting point:

Speed 1/min : 650

Contr.-rod trav.mm: 13.5

Testing:

1st c-rod trav.mm : 11.90

Speed 1/min : 1295...1310

2nd c-rod trav.mm : 4.00

Speed 1/min : 1415...1445

3rd c-rod trav.mm : 0.10...1.00

Speed 1/min : 1550

LOWEST RATED SPEED I

Control-lever

position degrees: 13...21

Setting point w/out aux. spring

Speed 1/min : 300

Contr.-rod trav.mm: 8.6...8.7

Testing:

Speed 1/min : 220

C-rod trav.mm min : 10.40

Speed 1/min : 300

C-rod trav.mm : 8.6...8.7

C-rod trav.mm : 2.00

Speed 1/min : 430...470

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750

Del.quantity cm³/ 1000H. : 90.5...94.5

(88.5...96.5)

Dispersion cm³/ 1000H. : 5.00

(7.00)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 12,7 B
 Edition : 12.09.86
 Superceeded : 12.85
 Calibrating oil : ISO-4113

Combination no. : 0 403 548 001

Injection pump
 Pump designation : PE8MW100/720LS1010
 EP type number : 0 413 508 001
 Governor
 Governor design. : RQ300/1150MW17
 Governor no. : 0 420 082 005

Customer-spec. information
 Customer : KHD

Engine : BF8L413F

1st version KW : 212.0
 Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 740 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values ----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 3.10...3.20
 : (3.05...3.25)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 8- 7- 2- 6- 5-
 4- 3

SD ang. spacing°CS: 0-45-90-135-180-225-
 270-315

Tolerance + - ° : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 750

Contr.-rod trav.mm: 12.20...12.30

Del.quantity cm3/ : 13.1...13.3

100H.: (12.9...13.5)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 6.3...6.5

Del.quantity cm3/ : 1.2...1.6

100H.: (1.0...1.9)

Dispersion cm3/ : 0.35

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -2

Speed 1/min: 650

Cont.-rod travelmm: 18.20...20.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 750

Charge press. hPa : 740

Del.quantity cm3/ : 131.0...133.0

1000H.: (129.0...135.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
 position degrees: 29...37

Setting point:

Speed 1/min : 650

Contr.-rod trav.mm: 19.5

Testing:

1st c-rod trav.mm : 9.20

Speed 1/min : 1195...1210

2nd c-rod trav.mm : 4.00

Speed 1/min : 1240...1270

3rd c-rod trav.mm : 0.00...1.00
Speed 1/min : 1400

fuel delivery (EES) with 24 volt.

LOWEST RATED SPEED I

Control-lever
position degrees: 6...14
Setting point w/out aux. spring
Speed 1/min : 300
Contr.-rod trav.mm: 6.3...6.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 7.80
Speed 1/min : 300
C-rod trav.mm : 6.3...6.5
C-rod trav.mm : 2.00
Speed 1/min : 365...405

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 750
C-rod trav.mm : 12.20...12.30
3rd speed 1/min : 1050
C-rod trav.mm : 11.20...11.40
4th speed 1/min : 1150
C-rod trav.mm : 10.20...10.50

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 740
Contr.-rod trav.mm: 12.20...12.30

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 9.90...10.00
2nd pressure hPa : 160
C-rod trav.mm : 10.30...10.60
3rd pressure hPa : 500
C-rod trav.mm : 11.80...11.90

SWITCH-OVER POINT

Speed 1/min : 230 (250)

FUEL-DELIVERY CHARACTERISTICS

Charge press. hPa : -
Speed 1/min : 500
Del. quantity cm³/ 1000H.: 87.5...89.5
1000H.: (85.5...91.5)

Remarks:

Check electrically unlatched starting

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 12.7 C1
Edition : 12.09.86
Superceeded : 9.82
Calibrating oil : ISO=4113

Combination no. : 0 403 548 004

Injection pump
Pump designation : PE8MW100/720LS1010
EP type number : 0 413 508 001
Governor
Governor design. : RQ300...1250MW32
Governor no. : 0 420 082 008

Customer-spec. information
Customer : KHD

Engine : BF8L413F

1st version kW : 235.0
Speed 1/min: 2500

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 740 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar : 30...32

Prestroke mm : 3.10...3.20
: (3.05...3.25)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 8- 7- 2- 6- 5-
 4- 3

SD ang. spacing°CS: 0-45-90-135-180-225-
 270-315
Tolerance + - ° : 0.50 (0.75)

BASIC SETTING

1st speed 1/min: 1250

Contr.-rod trav.mm: 12.20...12.30

Del.quantity cm³/ : 13.0...13.2

100H.: (12.8...13.4)

Dispersion cm³/ : 0.35

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 6.4...6.6

Del.quantity cm³/ : 1.2...1.6

100H.: (1.0...1.9)

Dispersion cm³/ : 0.35

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -2

Speed 1/min: 600

Cont.-rod travelmm: 19.20...20.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Charge press. hPa : 700

Del.quantity cm³/ : 130.0...132.0

1000H.: (128.0...134.0)

Dispersion cm³/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 29...37

Setting point:

Speed 1/min : 600

Contr.-rod trav.mm: 20.0

Testing:

1st c-rod trav.mm : 11.20

Speed 1/min : 1295...1310

2nd c-rod trav.mm : 4.00

Speed 1/min : 1345...1375

3rd c-rod trav.mm : 0.00...1.00
Speed 1/min : 1500

LOWEST RATED SPEED I

Control-lever

position degrees: 9...17

Setting point w/out aux. spring

Speed 1/min : 300

Contr.-rod trav.mm: 6.4...6.6

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8.10

Speed 1/min : 300

C-rod trav.mm : 6.4...6.6

C-rod trav.mm : 2.00

Speed 1/min : 375...415

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 850

C-rod trav.mm : 12.70...12.80

2nd speed 1/min : 950

C-rod trav.mm : 12.40...12.60

3rd speed 1/min : 1200

C-rod trav.mm : 12.20...12.30

4th speed 1/min : 1250

C-rod trav.mm : 12.20...12.30

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 300

Contr.-rod trav.mm: 11.90...12.00

Measurement

Speed 1/min : 500

1st pressure hPa : 700

C-rod trav.mm : 12.7...12.8

2nd pressure hPa : 225

C-rod trav.mm : 10.40...10.70

3rd pressure hPa : -

C-rod trav.mm : 9.70...9.80

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 700

Speed 1/min : 850

Del.quantity cm³/ : 130.5...134.5

1000H.: (128.5...136.5)

Dispersion cm³/ : 5.00

1000H.: (7.00)

Charge press. hPa : -

Speed 1/min : 500

Del.quantity cm³/ : 84.5...86.5
1000H.: (82.5...88.5)

Check electrically unlatched starting
fuel delivery (EES) with 24 volt.

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 13,4 D1

Edition : 12.09.86

Superceeded : 12.85

Calibrating oil : ISO-4113

Combination no. : 0 403 548 013

Injection pump

Pump designation : PE8MW100/720LS1117

EP type number : 0 413 508 101

Governor

Governor design. : RQV425...900MW66

Governor no. : 0 420 083 097

Customer-spec. information

Customer : KHD

Engine : F 8L 513 OPT.

1st version kW : 153.0

Speed 1/min: 1800

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 740 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 3.10...3.20
: (3.05...3.25)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 8- 7- 2- 6- 5-
4- 3

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315

Tolerance + - ° : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 900

Contr.-rod trav.mm: 12.50...12.60

Del.quantity cm3/ : 10.7...10.9

100H.: (10.5...11.1)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 425.0

Contr.-rod trav. m: 7.4...7.5

Del.quantity cm3/ : 1.3...1.7

100H.: (1.1...2.0)

Dispersion cm3/ : 0.35

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 940

Sleeve travel mm: 8.70...8.90

2nd speed 1/min: 990

Sleeve travel mm: 9.40...10.00

3rd speed 1/min: 550

Sleeve travel mm: 3.20...4.00

4th speed 1/min: 425

Sleeve travel mm: 1.40...2.20

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 900

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 900

Del.quantity cm3/ : 107.0...109.0

1000H.: (105.0...111.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 51...59

Testing:

1st c-rod trav.mm : 11.50
Speed 1/min : 940...950
2nd c-rod trav.mm : 4.50
Speed 1/min : 1000...1030
3rd c-rod trav.mm : 0.00...1.00
Speed 1/min : 1150

LOWEST RATED SPEED I

Control-lever
position degrees: 20...28
Setting point w/out aux. spring
Speed 1/min : 425
Contr.-rod trav.mm: 7.4...7.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 9.00
Speed 1/min : 425
C-rod trav.mm : 7.4...7.5

CONSTANT REGULATION

Speed 1/min : 450...750

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 900
C-rod trav.mm : 12.50...12.60
2nd speed 1/min : 675
C-rod trav.mm : 13.00...13.10
3rd speed 1/min : 775
C-rod trav.mm : 12.70...12.90

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 675
Del.quantity cm³/ : 111.5...113.5
1000H.: (109.5...115.5)
Dispersion cm³/ : 5.00
1000H.: (7.00)

Remarks:

Check electrically unlatched starting
fuel delivery (EES) with 24 volt.

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 13.4 DS
 Edition : 24.11.86
 Superceeded : 12.09.86
 Calibrating oil : ISO-4113

Combination no. : 0 403 548 015

Injection pump
 Pump designation : PE8MW100/720LS1117
 EP type number : 0 413 508 101
 Governor
 Governor design. : RQV450...1150MW70
 Governer no. : 0 420 083 103

Customer-spec. information
 Customer : KHD

Engine : F 8L 513

1st version kW : 155.0
 Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 689 740 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 3.10...3.20
 : (3.05...3.25)
 Contr.-rod trav.mm: 9.00...12.00

| Cam sequence : 1- 8- 7- 2- 6- 5-
 | 4- 3

SD ang. spacing°CS: 0-45-90-135-180-225-
 270-315
 Tolerance + - ° : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1150
 Contr.-rod trav.mm: 11.80...11.90
 Del.quantity cm3/ : 9.0...9.2
 100H.: (8.8...9.4)
 Dispersion cm3/ : 0.35
 100H.: (0.6)

2nd speed 1/min: 450.0
 Contr.-rod trav. m: 7.6...7.7
 Del.quantity cm3/ : 1.3...1.7
 100H.: (1.1...2.0)
 Dispersion cm3/ : 0.35
 100H.: (0.5)

SLEEVE POSITION

Control-lever position
 Degree: -1
 Speed 1/min: 1170
 Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version
 Speed 1/min: 1150
 Del.quantity cm3/ : 90.0...92.0
 1000H.: (88.0...94.0)
 Dispersion cm3/ : 3.50
 1000H.: (6.00)

HIGHEST RATED SPEED

1st version
 Control-lever
 position degrees: 52...60

Testing:
 1st c-rod trav.mm : 10.80
 Speed 1/min : 1190...1200
 2nd c-rod trav.mm : 4.50
 Speed 1/min : 1255...1285
 3rd c-rod trav.mm : 0.00...1.00
 Speed 1/min : 1350

LOWEST RATED SPEED I
 Control-lever

position degrees: 14...22
Setting point w/out aux. spring
Speed 1/min : 450
Contr.-rod trav.mm: 7.6...7.7

Testing:
Speed 1/min : 100
C-rod trav.mm min : 9.10
Speed 1/min : 450
C-rod trav.mm : 7.6...7.7

CONSTANT REGULATION
Speed 1/min : 470...570

TORQUE CONTROL
Torque-control curve - 1st version
1st speed 1/min : 1150
C-rod trav.mm : 11.80...11.90
2nd speed 1/min : 875
C-rod trav.mm : 13.10...13.20
3rd speed 1/min : 1050
C-rod trav.mm : 12.10...12.40

SWITCH-OVER POINT
Speed 1/min : 370 (390)

FUEL-DELIVERY CHARACTERISTICS
Speed 1/min : 875
Del.quantity cm³/ : 101.0...103.0
1000H.: (99.0...105.0)
Dispersion cm³/ : 5.00
1000H.: (7.00)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 13,4 D6

Edition : 12.09.86

Superceded : -

Calibrating oil : ISO-4113

Combination no. : 0 403 548 016

Injection pump

Pump designation : PE8MW100/720LS1118

EP type number : 0 413 508 102

Governor

Governor design. : RQ300...1100MW71

Governor no. : 0 420 082 021

Customer-spec. information

Customer : KHD

Engine : BF8L513

1st version kW : 172.0

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 740 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 3.10...3.20
: (3.05...3.25)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 8- 7- 2- 6- 5-
4- 3-SD ang. spacing°CS: 0-45-90-135-180-225-
270-315

Tolerance + - ° : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 11.70...11.80

Del.quantity cm3/ : 10.3...10.5

100H.: (10.1...10.7)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 8.0...8.1

Del.quantity cm3/ : 1.3...1.7

100H.: (1.1...1.9)

Dispersion cm3/ : 0.35

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 1150

Sleeve travel mm: 6.40...6.60

2nd speed 1/min: 1200

Sleeve travel mm: 9.50...10.40

3rd speed 1/min: 800

Sleeve travel mm: 5.80...6.20

4th speed 1/min: 300

Sleeve travel mm: 1.70...2.50

SLEEVE POSITION

Control-lever position

Degree: -2

Speed 1/min: 650

Cont.-rod travelmm: 19.20...20.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 103.0...105.0

1000H.: (101.0...107.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 27...35

Setting point:
Speed 1/min : 650
Contr.-rod trav.mm: 20.0

Testing:
1st c-rod trav.mm : 10.70
Speed 1/min : 1140...1150
2nd c-rod trav.mm : 4.00
Speed 1/min : 1185...1215
3rd c-rod trav.mm : 0.00...1.00
Speed 1/min : 1300

LOWEST RATED SPEED I

Control-lever
position degrees: 10...18
Setting point w/out aux. spring
Speed 1/min : 300
Contr.-rod trav.mm: 8.0...8.1

Testing:
Speed 1/min : 100
C-rod trav.mm min : 8.00

CONSTANT REGULATION
Speed 1/min : 330...400

SWITCH-OVER POINT
Speed 1/min : 220 (250)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 12.7 TS

Edition : 24.11.86

Superceeded : 12.09.86

Calibrating oil : ISO-4113

Combination no. : 0 403 548 017

Injection pump

Pump designation : PE8MW100/720LS1117

EP type number : 0 413 508 101

Governor

Governor design. : RQ300...1150MW61-1

Governer no. : 0 420 082 022

Customer-spec. information

Customer : KHD

Engine : F 8L 513

1st version kW : 188.0

Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 740 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 30...32

Prestroke mm : 3.10...3.20
: (3.05...3.25)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 8- 7- 2- 6- 5-
4- 3-

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315

Tolerance + - ° : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 11.50...11.60

Del.quantity cm3/ : 10.5...10.7

100H.: (10.3...10.9)

Dispersion cm3/ : 0.35

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 8.0...8.1

Del.quantity cm3/ : 1.1...1.5

100H.: (0.9...1.7)

Dispersion cm3/ : 0.35

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -2

Speed 1/min: 650

Cont.-rod travelmm: 19.20...20.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm3/ : 105.0...107.0

1000H.: (103.0...109.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 30...38

Setting point:

Speed 1/min : 650

Contr.-rod trav.mm: 20.0

Testing:

1st c-rod trav.mm : 10.50

Speed 1/min : 1190...1200

2nd c-rod trav.mm : 4.50

Speed 1/min : 1265...1295

3rd c-rod trav.mm : 0.00...1.00

Speed 1/min : 1350

LOWEST RATED SPEED I

Control-lever

position degrees: 10...18

Setting point w/out aux. spring

Speed 1/min : 300

Contr.-rod trav.mm: 8.0...8.1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 9.50

Speed 1/min : 300

C-rod trav.mm : 8.0...8.1

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1150

C-rod trav.mm : 11.50...11.60

2nd speed 1/min : 650

C-rod trav.mm : 12.60...12.70

3rd speed 1/min : 900

C-rod trav.mm : 12.00...12.30

SWITCH-OVER POINT

Speed 1/min : 220 (250)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 650

Del.quantity cm³/ : 114.0...116.0

1000H.: (112.0...118.0)

Dispersion cm³/ : 5.00

1000H.: (7.00)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MTU 63,3 A

Edition : 1.87

Superceded

Calibrating oil : ISO-4113

Combination no. : 0 406 008 032

Injection pump

Pump designation : PE8ZWM160/100RS2015

EP type number : 0 406 008 032

Governor

Governor design. : -

Governer no. :

Customer-spec. information

Customer : MTU

Engine : 16 V 396-03

1st version kW : 1920

Speed 1/min: -

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 40...45

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 1 688 901 026

Opening
pressure, bar : 220...223

Test inj. tubing : 1 680 750 016

Outside diameter
x Wall thickness
x Length mm : 8,00x2,00x1500

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2.50...2.60
: (-)

Contr.-rod trav.mm: 15.0

Cam sequence : 8-4-5-6-3-1-2-7

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315

Tolerance + - ° : 0.5(0.75)

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 18.00

Del.quantity cm3/ : 63.0...64.4

100H.: (62.5...64.9)

Dispersion cm3/ : 2.0

100H.: (3.0)

2nd speed 1/min: 1000

Contr.-rod trav. m: 9.00

Del.quantity cm3/ : 21.2...24.0

100H.: (20.7...24.5)

Dispersion cm3/ : 2.8

100H.: (4.2)

3rd speed 1/min: 350

Contr.-rod trav.mm: 9.00

Del.quantity cm3/ : 13.2...15.6

100H.: (12.7...16.1)

Dispersion cm3/ : 1.6

100H.: (2.4)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CUM 8,3 A
Edition : 10.86
Superceded : -
Calibrating oil : ISO-4113

Combination no. : 9 400 083 449

Injection pump
Pump designation : PES6A100D320/3RS2691
EP type number : 9 410 230 025
Governor
Governor design. : RSV400...1100A2C2209
R
Governor no. : 9 420 083 201

Customer-spec. information
Customer : CUMMINS

Engine : 6 CT 8,3 L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 047

Inlet press., bar : 1.0

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values _____

START OF DELIVERY

Test pressure, bar : 25...27

Prestroke mm : 2.80...2.90
: (2.75...2.95)
Contr.-rod trav.mm : 9.0...12.0
Cam sequence : 1-5-3-6-2-4

SD ang. spacing^oCS: 0-60-120-180-240-300
Tolerance + -^o : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9.00...12.00
& c-rod trav.max. : 21.00
Difference^o CS : 3...4

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 10.30...10.40

Del.quantity cm³/ : 9.0...9.2

100H.: (8.8...9.4)

Dispersion cm³/ : 0.35

100H.: (0.60)

2nd speed 1/min: 400

Contr.-rod trav. m: 5.90...6.10

Del.quantity cm³/ : 1.65...2.05

100H.: (1.40...2.30)

Dispersion cm³/ : 0.35

100H.: (0.55)

SLEEVE POSITION

Control-lever position

Degree: 3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 3,75

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 90.0...92.0

1000H.: (88.0...94.0)

Dispersion cm³/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 35...43

Testing:

1st c-rod trav.mm : 9.30

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4.00
Speed 1/min : 1170...1200
4th speed 1/min : 1300
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 16...24
Setting point w/out aux. spring
Speed 1/min : 400
Contr.-rod trav.mm: 5.50

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.0
Speed 1/min : 400
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 570...6.10

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 10.30...10.40
2nd speed 1/min : 500
C-rod trav.mm : 10.30...10.50
3rd speed 1/min : 400
C-rod trav.mm : 10.70...11.20

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 74.0...77.0
1000H.: (71.5...79.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CUM 8,3 A 1

Edition : 14.11.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 083 450

Injection pump

Pump designation : PES6A100D320/3RS2691

EP type number : 9 410 230 025

Governor

Governor design. : RSV375...1150A2C2210

R

Governor no. : 9 420 083 202

Customer-spec. information

Customer : CUMMINS

Engine : 6 C 8,3 L

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 047

Inlet press., bar : 1.00

Calibrating nozzle-holder

assembly : 0 681 343 009

Opening

pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.80...2.90

: (2.75...2.95)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - : 0.5(0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9.00...12.00

& c-rod trav. max. : 21.00

Difference ° CS : 3...4

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 11.10...11.20

Del.quantity cm³/ : 9.7...9.9

100H.: (9.5...10.1)

Dispersion cm³/ : 0.35

100H.: (0.6)

2nd speed 1/min: 375

Contr.-rod trav. m: 5.90...6.10

Del.quantity cm³/ : 1.45...1.85

100H.: (1.20...2.10)

Dispersion cm³/ : 0.35

100H.: (0.55)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 3.25

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm³/ : 97.0...99.0

1000H.: (95.0...101.0)

Dispersion cm³/ : 3.5

1000H.: (6.0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 42...50

Testing:

1st c-rod trav.mm : 10.10

Speed 1/min : 1190...1200

2nd c-rod trav.mm : 4.00
Speed 1/min : 1240...1270
4th speed 1/min : 1400
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 17...25
Setting point w/out aux. spring
Speed 1/min : 375
Contr.-rod trav.mm: 5.50

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.00
Speed 1/min : 375
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 570...530

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1150
C-rod trav.mm : 11.10...11.20
2nd speed 1/min : 500
C-rod trav.mm : 11.90...12.00
3rd speed 1/min : 800
C-rod trav.mm : 11.40...11.70

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 96.0...99.0
1000H.: (93.5...101.5)
Speed 1/min : 800
Del.quantity cm³/ : 100.0...103.0
1000H.: (97.5...105.5)

Remarks:

: MULLER
: VALMET
: MASSEY

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CUM 8,3 B 1

Edition : 10.86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 083 451

Injection pump

Pump designation : PES6A100D320/3RS2691
-2

EP type number : 9 410 230 028

Governor

Governor design. : RQV350...1100AB1218R

Governer no. : 9 420 080 214

Customer-spec. information

Customer : CUMMINS

Engine : 6 CT/8,3 L

1st version kW : 154.6

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 047

Inlet press., bar : 1.0

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.80...2.90
: (2.75...2.95)Contr.-rod trav.mm: 9.00...12.0
Cam sequence : 1-5-3-6-2-4SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - : 0.50(0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9.00...12.00
& c-rod trav max. : 21.0
Difference ° CS : 3...4

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 12.8...12.9

Del.quantity cm³/ : 11.9...12.1

100H.: (11.7...12.3)

Dispersion cm³/ : 0.35

100H.: (0.60)

2nd speed 1/min: 350

Contr.-rod trav. m: 5.90...6.10

Del.quantity cm³/ : 1.30...1.70

100H.: (1.05...1.95)

Dispersion cm³/ : 0.35

100H.: (0.55)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

Sleeve travel mm: 2.2...2.6

2nd speed 1/min: 500

Sleeve travel mm: 3.6...3.9

3rd speed 1/min: 800

Sleeve travel mm: 5.3...5.6

4th speed 1/min: 1150

Sleeve travel mm: 8.5...8.6

SLEEVE POSITION

Control-lever position

Degree: 1

Speed 1/min: 1140

Cont.-rod travlmm: 15.2...17.8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Charge press. hPa : 800
Del.quantity cm³/ : 119,0...121,0
1000H.: (117,0...123,0)
Dispersion cm³/ : 3,50
1000H.: (6,00)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 59...67

Testing:
1st c-rod trav.mm : 11.80
Speed 1/min : 1140...1150
2nd c-rod trav.mm : 4.00
Speed 1/min : 1240...1270
4th speed 1/min : 1370
C-rod trav.mm : 0...1.0

LOWEST RATED SPEED I

Control-lever
position degrees: 11...19

Testing:
Speed 1/min : 100
C-rod trav.mm min : 9.00
Speed 1/min : 350
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 630...690

CONSTANT REGULATION

Speed 1/min : 350...500

TORQUE CONTROL

Dimension a mm : 0.70
Torque-control curve - 1st version
1st speed 1/min : 1000
C-rod trav.mm : 12.80...12.90
2nd speed 1/min : 700
C-rod trav.mm : 13.50...13.60
3rd speed 1/min : 900
C-rod trav.mm : 13.30...13.50
4th speed 1/min : 850
C-rod trav.mm : 13.10...13.30

compensator (LDA, ADA, ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 800
Contr.-rod trav.mm: 13.50...13.60

Measurement

Speed 1/min : 500

1st pressure hPa : -11.4
C-rod trav.mm : 0...11.50

2nd pressure hPa : 575
C-rod trav.mm : 12.90...13.10
3rd pressure hPa : 475
C-rod trav.mm : 12.00...12.20

SWITCH-OVER POINT
Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 800
Speed 1/min : 700
Del.quantity cm³/ : 125.5...128.5
1000H.: (123.0...131.0)
Charge press. hPa : 800
Speed 1/min : 900
Del.quantity cm³/ : 128.5...131.5
1000H.: (126.0...134.0)
Charge press. hPa : -
Speed 1/min : 500
Del.quantity cm³/ : 86.0...88.0
1000H.: (84.0...90.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MWM 5,9 F
Edition : 17.11.86
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 9 400 085 264

Injection pump
Pump designation : PES6A90D320RS2733
EP type number : 9 400 084 010
Governor
Governor design. : RSV350...1250AOB1108
-2R
Governor no. : 9 420 083 209

Customer-spec. information
Customer : MWM

Engine : TD 229-6

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 046

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00XX2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.20...2.30
: (2.15...2.35)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1-5-3-6-2-4

SD ang. spacing^oCS: 0-60-120-180-240-300
Tolerance + - : 0.5 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9.00...12.00
& c-rod trav max. : 21.00
Difference^o CS : 4...5

BASIC SETTING

1st speed 1/min: 1250

Contr.-rod trav.mm: 9.40...9.50

Del.quantity cm³/ : 7.7...7.8

100H.: (7.5...8.0)

Dispersion cm³/ : 0.30

100H.: (0.50)

2nd speed 1/min: 350

Contr.-rod trav. m: 6.40...6.60

Del.quantity cm³/ : 0.9...1.3

100H.: (0.7...1.5)

Dispersion cm³/ : 0.25

100H.: (0.45)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travlmm: 0.30...1.00

Governor-spring reload

Notch setting x : 3.5

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Del.quantity cm³/ : 77.0...78.0

1000H.: (75.0...80.0)

Dispersion cm³/ : 3.0

1000H.: (5.0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 50...58

Testing:

1st c-rod trav.mm : 8.40

Speed 1/min : 1290...1300

2nd c-rod trav.mm : 4.00
Speed 1/min : 1330...1360
4th speed 1/min : 1420
C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever
position degrees: 21...29
Setting point w/out aux. spring
Speed 1/min : 350
Contr.-rod trav.mm: 6.00

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.0
Speed 1/min : 350
C-rod trav.mm : 6.40...6.60
C-rod trav.mm : 2.00
Speed 1/min : 410...470

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1250
C-rod trav.mm : 9.40...9.50
2nd speed 1/min : 500
C-rod trav.mm : 9.40...9.60
3rd speed 1/min : 400
C-rod trav.mm : 10.70...11.30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 56.0...58.0
1000H.: (53.5...60.5)

Remarks:

APPLICATION

Combine-harvester

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MWM 5,9 E

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 085 273

Injection pump

Pump designation : PES6A90D320RS2718

EP type number : 9 400 084 003

Governor

Governor design. : RSV350...1500AOB2207
-1R

Governer no. : 9 420 083 211

Customer-spec. information

Customer : MWM

Engine : TD 229-6

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 143 046

Inlet press., bar : 1.0

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 1,0

Prestroke mm : 2,65...2,75

: (2,60...2,80)

Contr.-rod trav.mm: 9,0...12,0

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9,0-12,0

Difference ° CS : 4,0...5,0

BASIC SETTING

1st speed 1/mi: 1500

Contr.-rod trav.mm: 10,9...11,0

Del.quantity cm3/ : 8,3...8,4

100H.: (8,1...8,6)

Dispersion cm3/ : 0,3

100H.: (0,5)

2nd speed 1/min: 350

Contr.-rod trav. m: 5,9...6,1

Del.quantity cm3/ : 1,0...1,4

100H.: (0,8...1,6)

Dispersion cm3/ : 0,25

100H.: (0,45)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travlmm: 0,3...1,0

Governor-spring reload

Notch setting x : 3,5

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1500

Del.quantity cm3/ : 83,0...84,0

1000H.: (81,0...86,0)

Dispersion cm3/ : 3,0

1000H.: (5,0)

HIGHEST RATED SPEED

Testing:

1st c-rod trav.mm : 9,9

Speed 1/min : 1540...1550

2nd c-rod trav.mm : 4,0

Speed 1/min : 1600...1630

4th speed 1/min : 1700

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 18...26

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 5,4...5,6

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 350

C-rod trav.mm : 5,9...6,1

C-rod trav.mm : 2,0

Speed 1/min : 430...490

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1500

C-rod trav.mm : 10,9...11,0

2nd speed 1/min : 500

C-rod trav. : 10,9...11,1

3rd speed 1 n : 400

C-rod trav.mm : 12,1...12,7

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500

Del.quantity cm³/ : 70,0...72,0

1000H.: (67,5...74,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MWM 5,9 E
 Edition : 17.11.86
 Superseded : 7.86
 Calibrating oil : ISO-4113

Combination no. : 9 400 085 285

Injection pump
 Pump designation : PES6A90D320RS2727
 EP type number : 9 400 084 007
 Governor
 Governor design. : RSV350...1250A0B1108
 -3R
 Governor no. : 9 420 083 223

Customer-spec. information
 Customer : MWM

Engine : D229-6

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 046

Inlet press., bar : 1.0

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6,00x2,00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.70...2.80
 : (2.65...2.85)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300
 Tolerance + - : 0.5 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9.00...12.00
 & c-rod trav max. : 21.00
 Difference ° CS : 3...4

BASIC SETTING

1st speed 1/mi: 1200

Contr.-rod trav.mm: 9.10...9.20

Del.quantity cm³/ : 62.5...63.5

100H.: (60.5...65.5)

Dispersion cm³/ : 3.0

100H.: (5.0)

2nd speed 1/min: 350

Contr.-rod trav. m: 5.90...6.10

Del.quantity cm³/ : 1.1...1.5

100H.: (0.9...1.7)

Dispersion cm³/ : 0.25

100H.: (0.45)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

Governor-spring reload

Notch setting x : 4.0

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Del.quantity cm³/ : 62.5...63.5

1000H.: (60.5...65.5)

Dispersion cm³/ : 3.0

1000H.: (5.0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 50...58

Testing:

1st c-rod trav.mm : 8.10

Speed 1/min : 1240...1250

2nd c-rod trav.mm : 4.00
Speed 1/min : 1300...1330
4th speed 1/min : 1450
C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever
position degrees: 25...33
Setting point w/out aux. spring
Speed 1/min : 350
Contr.-rod trav.mm: 5.50

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.00
Speed 1/min : 350
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 510...570

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1200
C-rod trav.mm : 9.10...9.20
2nd speed 1/min : 500
C-rod trav.mm : 9.60...9.70
3rd speed 1/min : 800
C-rod trav.mm : 9.30...9.60

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 52.0...54.0
1000H.: (49.5...56.5)
Speed 1/min : 800
Del.quantity cm³/ : 59.5...61.5
1000H.: (57.0...64.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5,7 M 11

Edition : 17.11.86

Superceeded :

Calibrating oil : IS-4113

Combination no. : 9 400 085 290

Injection pump

Pump designation : PES6A80D410RS2085Y

EP type number : 0 410 886 044

Governor

Governor design. : RSV350...1300A2B713-
1L

Governor no. : 9 420 083 226

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM 352

1st version kW : 88.0

Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 047

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 38...42

Prestroke mm : 2.15...2.25
: (2.10...2.30)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1-5-3-6-2-4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.5 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1300

Contr.-rod trav.mm: 10.40...10.50

Del.quantity cm3/ : 6.4...6.5

100H.: (6.25...6.65)

Dispersion cm3/ : 0.25

100H.: (0.4)

2nd speed 1/min: 350

Contr.-rod trav. m: 7.40...7.60

Del.quantity cm3/ : 1.25...1.55

100H.: (1.1...1.7)

Dispersion cm3/ : 0.2

100H.: (0.35)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

Governor-spring reload

Notch setting x : 4.25

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1300

Del.quantity cm3/ : 64.0...65.0

1000H.: (62.5...66.5)

Dispersion cm3/ : 2.5

1000H.: (4.0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 44...52

Testing:

1st c-rod trav.mm : 9.40

Speed 1/min : 1340...1350

2nd c-rod trav.mm : 4.00

Speed 1/min : 1390...1420

4th speed 1/min : 1550

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 16...24

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 7.00

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.00

Speed 1/min : 350

C-rod trav.mm : 7.40...7.60

C-rod trav.mm : 2.00

Speed 1/min : 650...710

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1300

C-rod trav.mm : 10.40...10.50

2nd speed 1/min : 500

C-rod trav.mm : 10.70...10.80

3rd speed 1/min : 800

C-rod trav.mm : 10.50...10.70

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500

Del.quantity cm³/ : 52.0...55.0

1000H.: (50.5...56.5)

Speed 1/min : 800

Del.quantity cm³/ : 55.0...58.0

1000H.: (53.5...59.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FOR 7,8 A

Edition : 15.12.86

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 9 400 087 335

Injection pump

Pump designation : PES6P110A720RS3150

EP type number : 9 400 087 046

Governor

Governor design. : RQV350...1300PA776

Governor no. : 9 420 080 210

Customer-spec. information

Customer : FORD (FTO)

Engine : 7,8 L - TC

1st version kW : 176.6

Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 025

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 4,25...4,35

: (4,20...4,40)

Contr.-rod trav.mm: 9,00-12,00

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9,0...12,0

& c-rod trav max. : 21

Difference ° CS : 2,0...3,0

BASIC SETTING

1st speed 1/min: 1300

Contr.-rod trav.mm: 13,6...13,7

Del.quantity cm³/ : 13,9...14,1

100H.: (13,7...14,3)

Dispersion cm³/ : 0,5

100H.: (0,9)

2nd speed 1/min: 350

Contr.-rod trav. m: 7,4...7,6

Del.quantity cm³/ : 1,5...1,9

100H.: (1,25...2,15)

Dispersion cm³/ : 0,35

100H.: (0,55)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed ; 1/min: 350

Sleeve travel mm: 0,6...1,3

2nd speed 1/min: 500

Sleeve travel mm: 2,3...2,7

3rd speed 1/min: 800

Sleeve travel mm: 4,0...4,3

4th speed 1/min: 1000

Sleeve travel mm: 5,0...5,3

5th speed 1/min: 1300

Sleeve travel mm: 7,2...7,3

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1350

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min : 1300
 Charge press. hPa : 600
 Del.quantity cm³/ 1000H.: 139,0...141,0
 Dispersion cm³/ 1000H.: (137,0...143,0)
 5,0

HIGHEST RATED SPEED

1st version
 Control-lever
 position degrees: 61...69

Testing:

1st c-rod trav.mm : 12,6
 Speed 1/min : 1360...1370
 2nd c-rod trav.mm : 4,0
 Speed 1/min : 1500...1530
 4th speed 1/min : 1620
 C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
 position degrees: 11...19

Testing:

Speed 1/min : 100
 C-rod trav.mm min : 9,0
 Speed 1/min : 350
 C-rod trav.mm : 7,4...7,6
 C-rod trav.mm : 2,0
 Speed 1/min : 620...680

CONSTANT REGULATION

Speed 1/min : 370...440

TORQUE CONTROL

Dimension a mm : ?
 Torque-control curve - 1st version
 1st speed 1/min : 1300
 C-rod trav.mm : 13,6...13,7
 2nd speed 1/min : 800
 C-rod trav.mm : 14,2...14,3
 3rd speed 1/min : 1000
 C-rod trav.mm : 14,05...14,15
 4th speed 1/min : 1050
 C-rod trav.mm : 13,75...13,95

compensator (LDA,ADA,ALDA)

1st version

Setting
 Speed 1/min : 500
 Pressure hPa : 600
 Contr.-rod trav.mm: 14,2...14,3

Measurement

Speed 1/min : 500

1st pressure hPa : -
 C-rod trav.mm : 13,5...13,6
 2nd pressure hPa : 420
 C-rod trav.mm : 13,7...13,8
 3rd pressure hPa : 475
 C-rod trav.mm : 13,9...14,1

SWITCH-OVER POINT

Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

1st version
 Charge press. hPa : 600
 Speed 1/min : 800
 Del.quantity cm³/ 1000H.: 125,0...129,0
 1000H.: (123,0...131,0)
 Dispersion cm³/ -
 1000H.: -
 Charge press. hPa : 600
 Speed 1/min : 1000
 Del.quantity cm³/ 135,0...139,00
 1000H.: (133,0...141,0)
 Dispersion cm³/ -
 1000H.: -
 Charge press. hPa : -
 Speed 1/min : 500
 Del.quantity cm³/ 99,0...101,0
 1000H.: (96,0...104,0)
 Dispersion cm³/ -
 1000H.: -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FOR 7,8 A 2
Edition : 15.12.86
Superseeded : 6.86
Calibrating oil : ISO-4113

Combination no. : 9 400 087 336

Injection pump
Pump designation : PES6P110A720RS3150
EP type number : 9 400 087 336
Governor
Governor design. : RQV350...1300PA776-2
Governor no. : 9 420 080 213

Customer-spec. information
Customer : FORD (FTO)

Engine : 7,8 L-TC

1st version kW : 154,6
Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 4,25...4,35
: (4,20...4,40)
Contr.-rod trav.mm: 9,0...12,0
Cam sequence : 1-5-3-6-2-4

SD ang. spacing⁰CS: 0-60-120-180-24-0300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9,0...12,0
& c-rod trav max. : 21,0
Difference⁰ CS : 2,0...3,0

BASIC SETTING

1st speed 1/min: 1300

Contr.-rod trav.mm: 12,3...12,4

Del.quantity cm³/ : 12,6...12,8
100H.: (12,4...13,0)

Dispersion cm³/ : 0,5
100H.: (0,9)

2nd speed 1/min: 350
Contr.-rod trav. m: 7,6...7,8
Del.quantity cm³/ : 2,3...2,7
100H.: (2,05...2,95)
Dispersion cm³/ : 0,35
100H.: (0,55)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350
Sleeve travel mm: 0,6...1,3
2nd speed 1/min: 500
Sleeve travel mm: 2,3...2,7
3rd speed 1/min: 800
Sleeve travel mm: 4,0...4,3
4th speed 1/min: 1000
Sleeve travel mm: 5,0...5,3
5th speed 1/min: 1700
Sleeve travel mm: 7,2...7,3

SLEEVE POSITION

Control-lever position
Degree: MAX.
Speed 1/min: 1350
Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version
Speed 1/min: 1300
Charge press. hPa : 550
Del.quantity cm³/ : 126,0...128,0
1000H.: (124,0...130,0)
Dispersion cm³/ : 5,0
1000H.: (9,0)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 58...66

Testing:

1st c-rod trav.mm : 11,3
Speed 1/min : 1360...1370
2nd c-rod trav.mm : 4,0
Speed 1/min : 1470...1500
4th speed 1/min : 1620
C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
position degrees: 12...20

Testing:

Speed 1/min : 100
C-rod trav.mm min : 9,5
Speed 1/min : 350
C-rod trav.mm : 7,6...7,8
C-rod trav.mm : 2,0
Speed 1/min : 590...650

CONSTANT REGULATION

Speed 1/min : 370...440

TORQUE CONTROL

Dimension a mm : ?
Torque-control curve - 1st version
1st speed 1/min : 1300
C-rod trav.mm : 12,3...12,4
2nd speed 1/min : 800
C-rod trav.mm : 12,6...12,7
3rd speed 1/min : 1050
C-rod trav.mm : 12,45...12,55
4th speed 1/min : 1000
C-rod trav.mm : 12,5...12,7

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 550
Contr.-rod trav.mm: 12,6...12,7

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 12,3...12,4
2nd pressure hPa : 420
C-rod trav.mm : 12,4...12,5
3rd pressure hPa : 370
C-rod trav.mm : 12,3...12,4

SWITCH-OVER POINT

Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 550
Speed 1/min : 800
Del. quantity cm³/ 105,0...109,0
1000H. (103,0...111,0)
Dispersion cm³/ -
1000H. -
Charge press. hPa : 550
Speed 1/min : 1000
Del. quantity cm³/ 118,0...122,0
1000H. (116,0...124,0)
Dispersion cm³/ -
1000H. -
Charge press. hPa : -
Speed 1/min : 500
Del. quantity cm³/ 77,0...79,0
1000H. (74,0...82,0)
Dispersion cm³/ -
1000H. -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FOR 7,8 A 1
Edition : 15.12.86
Superceeded : 12.85
Calibrating oil : ISO-4113

Combination no. : 9 400 087 337

Injection pump
Pump designation : PES6P110A720RS3150
EP type number : 9 400 087 046
Governor
Governor design. : RQV350...1300PA776-1
Governor no. : 9 420 080 212

Customer-spec. information
Customer : FORD (FTO)

Engine : 7,8 L-TC

1st version kW : 136,2
Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 4,25...4,35
: (4,20...4,40)
Contr.-rod trav.mm: 9,0...12,0
Cam sequence : 1-5-3-6-2-4

SD ang. spacing^oCS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9,0...12,0
& c-rod trav max. : 21,0
Difference^o CS : 2,0...3,0

BASIC SETTING

1st speed 1/min: 1300

Contr.-rod trav.mm: 12,0...12,1

Del.quantity cm³/ : 12,3...12,5
100H.: (12,1...12,7)

Dispersion cm³/ : 0,5

100H.: (0,9)

2nd speed 1/min: 3500

Contr.-rod trav. m: 7,4...7,6

Del.quantity cm³/ : 2,1...2,5
100H.: (1,85...2,75)

Dispersion cm³/ : 0,35

100H.: (0,55)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350
Sleeve travel mm: 0,6...1,3
2nd speed 1/min: 500
Sleeve travel mm: 2,3...2,7
3rd speed 1/min: 800
Sleeve travel mm: 4,0...4,3
4th speed 1/min: 1000
Sleeve travel mm: 5,0...5,3
5th speed 1/min: 1300
Sleeve travel mm: 7,2...7,3

SLEEVE POSITION

Control-lever position
Degree: MAX.
Speed 1/min: 1350
Cont.-rod travlmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1300
Charge press. hPa : 600
Del.quantity cm³/ : 123,0...125,0
1000H.: (121,0...127,0)
Dispersion cm³/ : 5,0
1000H.: (9,0)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 58...66

Testing:

1st c-rod trav.mm : 11,0
Speed 1/min : 1360...1370
2nd c-rod trav.mm : 4,0
Speed 1/min : 1470...1500
4th speed 1/min : 1600
C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
position degrees: 11...19

Testing:

Speed 1/min : 100
C-rod trav.mm min : 9,5
Speed 1/min : 350
C-rod trav.mm : 7,4...7,6
C-rod trav.mm : 2,0
Speed 1/min : 630...690

CONSTANT REGULATION

Speed 1/min : 370...440

TORQUE CONTROL

Dimension a mm : ?
Torque-control curve - 1st version
1st speed 1/min : 1300
C-rod trav.mm : 12,0...12,1
2nd speed 1/min : 800
C-rod trav.mm : 12,3...12,4
3rd speed 1/min : 900
C-rod trav.mm : 12,3...12,4
4th speed 1/min : 1015
C-rod trav.mm : 12,15...12,25

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 600
Contr.-rod trav.mm: 12,3...12,4

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 11,3...11,4
2nd pressure hPa : 245
C-rod trav.mm : 11,6...11,7
3rd pressure hPa : 335
C-rod trav.mm : 12,0...12,2

SWITCH-OVER POINT

Speed 1/min : 290 (310)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 600
Speed 1/min : 800
Del. quantity cm³/ : 101,0...105,0
1000H.: (99,0...107,0)
Dispersion cm³/ : -
1000H.: -
Charge press. hPa : 600
Speed 1/min : 900
Del. quantity cm³/ : 107,5...111,5
1000H.: (105,5...113,5)
Dispersion cm³/ : -
1000H.: -
Charge press. hPa : -
Speed 1/min : 500
Del. quantity cm³/ : 69,5...71,5
1000H.: (66,5...74,5)
Dispersion cm³/ : -
1000H.: -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAT 7,0 A4
Edition : 9.86
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 9 400 087 351

Injection pump
Pump designation : PES4P80A720LS440
EP type number : 9 400 087 351
Governor
Governor design. : RQV350...950PA609-3
Governor no. : 9 420 080 198

Customer-spec. information
Customer : CATERPILLAR

Engine : 3304 PC

1st version kW : 55
Speed 1/min: 1900

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 861 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1,95...2,05
: (1,90...2,10)
Contr.-rod trav.mm: 9,0...12,0

Cam sequence : 1-3-4-2

SD ang. spacing⁰CS: 0-90-180-270
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 950

Contr.-rod trav.mm: 11,30...11,40

Del.quantity cm³/ : 8,65...8,75

100H.: (8,50...8,90)

Dispersion cm³/ : 0,25

100H.: (0,40)

2nd speed 1/min: 350

Contr.-rod trav. m: 6,7...6,9

Del.quantity cm³/ : 0,85...1,55

100H.: (0,65...1,75)

Dispersion cm³/ : 0,20

100H.: (0,35)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 325

Sleeve travel mm: 0,5...2,0

2nd speed 1/min: 400

Sleeve travel mm: 2,7...3,1

3rd speed 1/min: 500

Sleeve travel mm: 3,5...4,2

4th speed 1/min: 800

Sleeve travel mm: 6,1...6,6

5th speed 1/min: 1010

Sleeve travel mm: 8,4...8,6

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1010

Cont.-rod travel mm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 950

Del.quantity cm³/ : 86,5...87,5

1000H.: (85,0...89,0)

Dispersion cm³/ : 2,5

1000H.: (4,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 62...71

Testing:

1st c-rod trav.mm : 10,3

Speed 1/min : 980...990

2nd c-rod trav.mm : 4,0

Speed 1/min : 1040...1070

4th speed 1/min : 1150

C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 13...21

Testing:

Speed 1/min : 100

C-rod trav.mm min : 11,0

Speed 1/min : 350

C-rod trav.mm : 6,3...6,5

C-rod trav.mm : 2,0

Speed 1/min : 540...600

CONSTANT REGULATION

Speed 1/min : 300...400

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 950

C-rod trav.mm : 11,3...11,4

2nd speed 1/min : 500

C-rod trav.mm : 12,2...12,3

3rd speed 1/min : 700

C-rod trav.mm : 12,1...12,3

4th speed 1/min : 800

C-rod trav.mm : 11,7...12,0

SWITCH-OVER POINT

Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500

Del.quantity cm³/ : 93,0...95,0

1000H.: (92,0...96,0)

Dispersion cm³/ : -

1000H.: -

Speed 1/min : 700

Del.quantity cm³/ : 95,5...97,5

1000H.: (94,5...98,5)

Dispersion cm³/ : -

1000H.: -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAT 7,0 AS
 Edition : 09.86
 Superceeded : -
 Calibrating oil : ISO-4113

Combination no. : 9 400 087 352

Injection pump
 Pump designation : PES4P80A720LS440
 EP type number : 9 400 087 028
 Governor
 Governor design. : RQV350...1000PA613-3
 Governer no. : 9 420 080 217

Customer-spec. information
 Customer : CATERPILLAR

Engine : 3304

1st version kW : 55
 Speed 1/min: 2000

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.5

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
 x Wall thickness
 x Length mm : 6,00x1,50x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Prestroke mm : 1,95...2,05
 : (1,90...2,10)
 Contr.-rod trav.mm: 9,0...12,0
 Cam sequence : 1-3-4-2

SD ang. spacing°CS: 0-90-180-270
 Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 11,0...11,1

Del.quantity cm3/ : 8,35...8,45

100H.: (8,20...8,60)

Dispersion cm3/ : 0,25

100H.: (0,40)

2nd speed 1/min: 350

Contr.-rod trav. m: 6,7...6,9

Del.quantity cm3/ : 0,85...1,55

100H.: (0,65...1,75)

Dispersion cm3/ : 0,20

100H.: (0,35)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 325

Sleeve travel mm: 0,5...2,0

2nd speed 1/min: 400

Sleeve travel mm: 2,7...3,1

3rd speed 1/min: 500

Sleeve travel mm: 3,5...4,2

4th speed 1/min: 800

Sleeve travel mm: 6,1...6,6

5th speed 1/min: 1010

Sleeve travel mm: 8,4...8,6

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1010

Cont.-rod travemm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm3/ : 83,5...84,5

1000H.: (82,0...86,0)

Dispersion cm3/ : 2,5

1000H.: (4,0)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 65...74

Testing:

1st c-rod trav.mm : 10,0
Speed 1/min : 1030...1040
2nd c-rod trav.mm : 4,0
Speed 1/min : 1090...1120
4th speed 1/min : 1170
C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
position degrees: 13...21

Testing:

Speed 1/min : 250
C-rod trav.mm min : 11,0
Speed 1/min : 350
C-rod trav.mm : 6,5...6,7
C-rod trav.mm : 2,0
Speed 1/min : 550...610

CONSTANT REGULATION

Speed 1/min : 300...400

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1000
C-rod trav.mm : 11,0...11,1
2nd speed 1/min : 500
C-rod trav.mm : 11,5...11,6
3rd speed 1/min : 700
C-rod trav.mm : 11,4...11,6
4th speed 1/min : 800
C-rod trav.mm : 11,2...11,5

SWITCH-OVER POINT

Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ 80,0...82,0
1000H. (79,0...83,0)
Dispersion cm³/ -
1000H. -
Speed 1/min : 700
Del.quantity cm³/ 87,0...89,0
1000H. (86,0...90,0)
Dispersion cm³/ -
1000H. -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FOR 6,6 D
 Edition : 15.12.86
 Superceded : 2.86
 Calibrating oil : ISO-4113

Combination no. : 9 400 087 353

Injection pump
 Pump designation : PES6P110A720RS3157
 EP type number : 9 400 087 048
 Governor
 Governor design. : RQV350...1300PA788
 Governer no. : 9 4200 080 215

Customer-spec. information

1st version kW : 125,1
 Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1,5

Calibrating nozzle-holder
 assembly : 1 688 901 017

Opening
 pressure, bar : 207...210

Perforated-plate
 diameter mm : 0,6

Test inj. tubing : 1 680 750 015

Outside diameter
 x Wall thickness
 x Length mm : 6,00x1,50x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 4,25...4,35
 : (4,20...4,40)
 Contr.-rod trav.mm: 9,0...12,0

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1300

Contr.-rod trav.mm: 13,0...13,1

Del.quantity cm3/ : 12,5...12,7

100H.: (12,3...12,9)

Dispersion cm3/ : 0,50

100H.: (0,75)

2nd speed 1/min: 350

Contr.-rod trav. m: 7,9...8,1

Del.quantity cm3/ : 1,9...2,3

100H.: (1,65...2,55)

Dispersion cm3/ : 0,35

100H.: (0,55)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

Sleeve travel mm: 0,6...1,3

2nd speed 1/min: 500

Sleeve travel mm: 2,3...2,7

3rd speed 1/min: 800

Sleeve travel mm: 4,0...4,3

4th speed 1/min: 1000

Sleeve travel mm: 5,0...5,3

5th speed 1/min: 1300

Sleeve travel mm: 7,2...7,3

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1350

Cont.-rod travellmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1300

Charge press. hPa : 900

Del.quantity cm3/ : 125,0...127,0

1000H.: (123,0...129,0)

Dispersion cm3/ : 5,0

1000H.: (9,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 60...68

Testing:

1st c-rod trav.mm : 12,0
Speed 1/min : 1360...1370
2nd c-rod trav.mm : 4,0
Speed 1/min : 1490...1520
4th speed 1/min : 1620
C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 11...19

Testing:

Speed 1/min : 100
C-rod trav.mm min : 9,5
Speed 1/min : 350
C-rod trav.mm : 7,9...8,1
C-rod trav.mm : 2,0
Speed 1/min : 620...680

CONSTANT REGULATION

Speed 1/min : 370...440

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500
Pressure hPa : 900
Contr.-rod trav.mm: 13,0...13,1

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 11,4...11,5
2nd pressure hPa : 650
C-rod trav.mm : 12,4...12,6
3rd pressure hPa : 530
C-rod trav.mm : 11,8...11,9

SWITCH-OVER POINT

Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 900
Speed 1/min : 800
Del.quantity cm³/ 1000H.: 99,0...103,0
1000H.: (97,0...105,0)
Dispersion cm³/ 1000H.: -

Charge press. hPa : -
Speed 1/min : 500
Del.quantity cm³/ 1000H.: 60,0...62,0
1000H.: (57,0...65,0)
Dispersion cm³/ 1000H.: -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FOR 6,6 E
Edition : 15.12.86
Superceeded : 2.86
Calibrating oil : ISO-4113

Combination no. : 9 400 087 354

Injection pump
Pump designation : PES6P110A720RS3158
EP type number : 9 400 087 049
Governor
Governor design. : RQV350...1300PA787
Governor no. : 9 420 080 218

Customer-spec. information
Customer : FORD (FTO)

Engine : 6,6 L - TC

1st version kW : 129.2
Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY
Test pressure, bar: 25...27

Prestroke mm : 4,25...4,35
 : (4,20...4,40)
 Contr.-rod trav.mm: 9,0...12,0
 Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9,0...12,0
 & c-rod trav max. : 21,0
 Difference ° CS : 3,5...4,5

BASIC SETTING

1st speed 1/min: 1300

Contr.-rod trav.mm: 11,6...1,7

Del.quantity cm³/ : 11,25...11,45
 100H.: (11,05...11,65)

Dispersion cm³/ : 0,5

100H.: (0,9)

2nd speed 1/min: 350

Contr.-rod trav. m: 7,7...7,9

Del.quantity cm³/ : 2,0...2,4
 100H.: (1,75...2,65)

Dispersion cm³/ : 0,35

100H.: (0,55)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350
 Sleeve travel mm: 0,6...1,3
 2nd speed 1/min: 500
 Sleeve travel mm: 2,3...2,7
 3rd speed 1/min: 800
 Sleeve travel mm: 4,0...4,3
 4th speed 1/min: 1000
 Sleeve travel mm: 5,0...5,3
 5th speed 1/min: 1300
 Sleeve travel mm: 7,2...7,3

SLEEVE POSITION

Control-lever position
 Degree: MAX.
 Speed 1/min: 1350
 Cont.-rod travel mm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version
 Speed 1/min: 1300
 Del.quantity cm³/ : 112,5...114,5
 1000H.: (110,5...116,5)
 Dispersion cm³/ : 5,0
 1000H.: (9,0)

HIGHEST RATED SPEED

1st version
 Control-lever
 position degrees: 58...66

Testing:

1st c-rod trav.mm : 10,6
 Speed 1/min : 1360...1370
 2nd c-rod trav.mm : 4,0
 Speed 1/min : 1470...1500
 4th speed 1/min : 1600
 C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
 position degrees: 11...19

Testing:

Speed 1/min : 100
 C-rod trav.mm min : 9,5
 Speed 1/min : 350
 C-rod trav.mm : 7,7...7,9
 C-rod trav.mm : 2,0
 Speed 1/min : 690...750

CONSTANT REGULATION

Speed 1/min : 370...440

TORQUE CONTROL

Dimension a mm : ?
 Torque-control curve - 1st version
 1st speed 1/min : 1300
 C-rod trav.mm : 11,6...11,7
 2nd speed 1/min : 800
 C-rod trav.mm : 12,1...12,2
 3rd speed 1/min : 900
 C-rod trav.mm : 12,0...12,2
 4th speed 1/min : 1050
 C-rod trav.mm : 11,85...11,90

SWITCH-OVER POINT

Speed 1/min : 290 (310)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
 Del.quantity cm³/ : 95,5...99,5
 1000H.: (93,5...101,5)
 Dispersion cm³/ : -
 1000H.: -
 Speed 1/min : 900

Del.quantity cm³/ : 101,0...106,0
1000H.: (99,0...108,0)

Dispersion cm³/ : -
1000H.: -

Remarks:

C01

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAT 7,0 E
Edition : 17.11.86
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 9 400 087 362

Injection pump
Pump designation : PES4P100A720LS501
EP type number : 9 400 087 051
Governor
Governor design. : RQV350...1100PA828
Governor no. : 9 420 080 232

Customer-spec. information
Customer : CATERPILLAR

Engine : 3304 DIT

1st version kW : 81,3
Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 401 087 214

Inlet press., bar : 2,0

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...219

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00,600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values _____

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 3.95...4.05
: (3.90...4.10)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1-3-4-2

SD ang. spacing⁰CS: 0-90-180-270
Tolerance + - : 0.5 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 10.60...10.70

Del.quantity cm³/ : 13.1...13.2

100H.: (12.9...13.4)

Dispersion cm³/ : 0.35

100H.: (0.6)

2nd speed 1/min: 350

Contr.-rod trav. m: 6.40...6.60

Del.quantity cm³/ : 1.5...1.9
100H.: (1.25...2.15)

Dispersion cm³/ : 0.35

100H.: (0.55)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

Sleeve travel mm: 1.30...1.50

2nd speed 1/min: 500

Sleeve travel mm: 2.90...3.20

3rd speed 1/min: 700

Sleeve travel mm: 4.50...4.80

4th speed 1/min: 900

Sleeve travel mm: 6.00...6.20

5th speed 1/min: 1150

Sleeve travel mm: 8.50...8.60

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1150

Cont.-rod travel mm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 600

Del.quantity cm³/ : 131.0...132.0

1000H.: (129.0...134.0)

Dispersion cm³/ : 3.5

1000H.: (6.0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 61...69

Testing:

1st c-rod trav.mm : 9.60

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4.00

Speed 1/min : 1200...1230

4th speed 1/min : 1350

C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 9...17

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8.00

Speed 1/min : 350

C-rod trav.mm : 5.10...5.30

C-rod trav.mm : 2.00

Speed 1/min : 530...590

CONSTANT REGULATION

Speed 1/min : 370...440

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 600

Contr.-rod trav.mm: 10.60...10.70

Measurement

Speed 1/min : 500

1st pressure hPa : -

C-rod trav.mm : 8.70...8.80

2nd pressure hPa : 310

C-rod trav.mm : 10.10...10.20

3rd pressure hPa : 210

C-rod trav.mm : 9.10...9.30

SWITCH-OVER POINT

Speed 1/min : 270 (310)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 600

Speed 1/min : 700

Del.quantity cm³/ 123.0...127.0
1000H.: (121.0...129.0)
Charge press. hPa : -
Speed 1/min : 1100
Del.quantity cm³/ 90.0...92.0
1000H.: (88.0...94.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAT 10,5 G2
Edition : 3.12.86
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 9 400 087 363

Injection pump
Pump designation : PES6P100A720LS502
EP type number : 9 400 087 050
Governor
Governor design. : RQV350...1100PA828
Governor no. : 9 420 080 232

Customer-spec. information
Customer : CATERPILLAR

Engine : 3306 DITA

1st version kW : 135.0
Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 401 087 348

Inlet press., bar : 2.0

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values _____

START OF DELIVERY

Test pressure, bar: 25...27

3 $\mu^2 \Sigma$

Prestroke mm : 3.95...4.05
 : (3.90...4.10)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1-5-3-6-2-4

SD ang. spacing⁰CS: 0-60-120-180-240-300
Tolerance + - : 0.5(0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 12.90...13.00

Del.quantity cm³/ : 15.3...15.5

 100H.: (15.1...15.7)

Dispersion cm³/ : 0.35

 100H.: (0.6)

2nd speed 1/min: 350

Contr.-rod trav. m: 6.40...6.60

Del.quantity cm³/ : 1.3...1.7

 100H.: (1.05...1.95)

Dispersion cm³/ : 0.35

 100H.: (0.55)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

 Sleeve travel mm: 1.30...1.50

2nd speed 1/min: 500

 Sleeve travel mm: 2.90...3.20

3rd speed 1/min: 700

 Sleeve travel mm: 4.50...4.80

4th speed 1/min: 900

 Sleeve travel mm: 6.00...6.20

5th speed 1/min: 1150

 Sleeve travel mm: 8.50...8.60

SLEEVE POSITION

Control-lever position

 Degree: -1

Speed 1/min: 1150

Cont.-rod travlmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 600

Del.quantity cm³/ : 153.0...155.0

 1000H.: (151.0...157.0)

Dispersion cm³/ : 3.5

 1000H.: (6.0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 62...70

Testing:

1st c-rod trav.mm : 11.90

 Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4.00

 Speed 1/min : 1250...1280

4th speed 1/min : 1350

 C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 9...17

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8.00

Speed 1/min : 350

C-rod trav.mm : 4.90...5.10

C-rod trav.mm : 2.00

Speed 1/min : 500...560

CONSTANT REGULATION

Speed 1/min : 370...440

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 600

Contr.-rod trav.mm: 12.90...13.00

Measurement

Speed 1/min : 500

1st pressure hPa : -

 C-rod trav.mm : 9.90...10.00

2nd pressure hPa : 340

 C-rod trav.mm : 12.00...12.10

3rd pressure hPa : 200

 C-rod trav.mm : 10.60...10.80

SWITCH-OVER POINT

Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 600

Speed 1/min : 700

Del.quantity cm³/ : 159.0...163.0
1000H.: (157.0...165.0)
Dispersion cm³/ : 5.0
1000H.: (7.0)
Charge press. hPa : -
Speed 1/min : 1100
Del.quantity cm³/ : 108.0...110.0
1000H.: (106.0...112.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FOR 7,8 B 1

Edition : 15.12.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 087 367

Injection pump

Pump designation : PES6P110A720RS3151

EP type number : 9 400 087 047

Governor

Governor design. : RQV350...1200PA777-1

Governor no. : 9 420 080 234

Customer-spec. information

Customer : FORD (FTO)

Engine : 7,8 L TC

1st version kW : 165.6

Speed 1/min: 2400

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening

pressure, bar : 207...210

Perforated-plate

diameter mm : 0,6

Test inj. tubing : 1 680 750 015

Outside diameter

x Wall thickness

x Length mm : 6,00x1,50x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.

per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 4.25...4.35
: (4.20...4.40)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1-5-3-6-2-4

SD ang. spacing^bCS: 0-60-120-180-240-300

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1200

Contr.-rod trav.mm: 14.10...14.20

Del.quantity cm³/ : 14.1...14.3

100H.: (13.9...14.5)

Dispersion cm³/ : 0.50

100H.: (0.90)

2nd speed 1/min: 350

Contr.-rod trav.mm: 7.40...7.60

Del.quantity cm³/ : 1.6...2.0

100H.: (1.3...2.2)

Dispersion cm³/ : 0.35

100H.: (0.55)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

Sleeve travel mm: 0.60...1.30

2nd speed 1/min: 500

Sleeve travel mm: 2.30...2.70

3rd speed 1/min: 800

Sleeve travel mm: 4.00...4.30

4th speed 1/min: 1000

Sleeve travel mm: 5.00...5.30

5th speed 1/min: 1300

Sleeve travel mm: 7.20...7.30

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 1350

Cont.-rod trav.mmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Charge press. hPa : 800

Del.quantity cm³/ : 141.5...143.5

1000H.: (139.5...145.5)

Dispersion cm³/ : 5.0
1000H.: (9.0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 56...64

Testing:

1st c-rod trav.mm : 13.10
Speed 1/min : 1260...1270
2nd c-rod trav.mm : 4.00
Speed 1/min : 1425...1455
4th speed 1/min : 1600
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 11...19

Testing:

Speed 1/min : 100
C-rod trav.mm min : 3500
Speed 1/min : 7.40.
C-rod trav.mm : ..7.60
C-rod trav.mm : 2.00
Speed 1/min : 620...680

CONSTANT REGULATION

Speed 1/min : 370...440

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500
Pressure hPa : 800
Contr.-rod trav.mm: 13.80...13.90

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 12.10...12.20
2nd pressure hPa : 580
C-rod trav.mm : 13.70...13.80
3rd pressure hPa : 390
C-rod trav.mm : 12.60...12.80

SWITCH-OVER POINT

Speed 1/min : 290(310)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 800

Speed 1/min : 800

Del.quantity cm³/ : 119.0...121.0
1000H.: (117.0...123.0)

Charge press. hPa : -
Speed 1/min : 500
Del.quantity cm³/ 73.0...75.0
1000H.: (70.0...78.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : VOL 10,0 Q9
Edition : 10.86
Superceded : -
Calibrating oil : ISO-4113

Combination no. : 9 400 087 368

Injection pump
Pump designation : PE6P110A320RS3108V
EP type number : 0 411 816 737
Governor
Governor design. : RQV250...1100PA589-1
Governor no. : 9 420 080 166

Customer-spec. information
Customer : VOLVO

Engine : THD 101 FD

1st version kW : 210
Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 3,00...3,10
: (2,95...3,15)
Contr.-rod trav. mm: 9,0...12,0

Cam sequence : 1-5-3-6-2-4

SD ang. spacing[°]CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 13,7...13,8

Del.quantity cm3/ : 18,0...18,2

100H.: (17,7...18,5)

Dispersion cm3/ : 0,4

100H.: (0,75)

2nd speed 1/min: 250

Contr.-rod trav. m: 5,4...5,6

Del.quantity cm3/ : 3,2...3,6

100H.: (2,95...3,85)

Dispersion cm3/ : 0,3

100H.: (0,6)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 250

Sleeve travel mm: 1,2...1,3

2nd speed 1/min: 370

Sleeve travel mm: 2,6...3,0

3rd speed 1/min: 430

Sleeve travel mm: 3,5...3,9

4th speed 1/min: 1160

Sleeve travel mm: 8,1...8,3

5th speed 1/min: 1210

Sleeve travel mm: 9,4...9,6

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1175

Cont.-rod travellmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Charge press. hPa : 1200

Del.quantity cm3/ : 180,0...182,0

1000H.: (177,0...185,0)

Dispersion cm3/ : 4,0

1000H.: (7,5)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 61...69

Testing:

1st c-rod trav.mm : 12,7

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1220...1250

4th speed 1/min : 1350

C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 7...15

Testing:

Speed 1/min : 100

C-rod trav.mm min : 6,7

Speed 1/min : 250

C-rod trav.mm : 5,4...5,6

C-rod trav.mm : 2,0

Speed 1/min : 345...405

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 1200

Contr.-rod trav.mm: 13,7...13,8

Measurement

Speed 1/min : 500

C-rod trav.mm : 9,8...9,9

2nd pressure hPa : 720

C-rod trav.mm : 12,8...12,9

3rd pressure hPa : 360

C-rod trav.mm : 10,9...11,0

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700

Del.quantity cm3/ : 108,0...110,0

1000H.: (105,0...113,0)

Dispersion cm3/ : -

1000H.: -

Remarks:

Because of flattening, set the spring preload on new delivery-valve holders to 2.9...3.1 mm.

APPLICATION

Omnibus

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : VOL 10,0010

Edition : 10.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 087 369

Injection pump

Pump designation : PE6P110A320RS3108Z

EP type number : 0 411 816 728

Governor

Governor design. : RQV250...1100PA589-1

Governor no. : 9 420 080 166

Customer-spec. information

Customer : VOLVO

Engine : THD101GB

1st version kW : 160

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 3,00...3,10
: (2,95...3,15)

Contr.-rod trav.mm: 9,0...12,0

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 10,5...10,6

Del.quantity cm3/ : 12,0...12,3

100H.: (11,8...12,6)

Dispersion cm3/ : 0,4

100H.: (0,75)

2nd speed 1/min: 250

Contr.-rod trav. m: 5,4...5,6

Del.quantity cm3/ : 3,2...3,6

Dispersion cm3/ : 0,3

100H.: (0,6)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 250

Sleeve travel mm: 1,2...1,3

2nd speed 1/min: 370

Sleeve travel mm: 2,6...3,0

3rd speed 1/min: 430

Sleeve travel mm: 3,5...3,9

4th speed 1/min: 1160

Sleeve travel mm: 8,1...8,3

5th speed 1/min: 1210

Sleeve travel mm: 9,4...9,6

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1175

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Charge press. hPa : 750

Del.quantity cm3/ : 120,0...123,0

1000H.: (118,0...126,0)

Dispersion cm3/ : 4,0

1000H.: (7,5)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 52...60

APPLICATION

Testing:

1st c-rod trav.mm : 9,5
Speed 1/min : 1140...1150
2nd c-rod trav.mm : 4,0
Speed 1/min : 1205...1235
4th speed 1/min : 1350
C-rod trav.mm : 0...1,0

Omnibus

LOWEST RATED SPEED I

Control-lever

position degrees: 8...12

Testing:

Speed 1/min : 100
C-rod trav.mm min : 6,9
Speed 1/min : 250
C-rod trav.mm : 5,4...5,6
C-rod trav.mm : 2,0
Speed 1/min : 350...410

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500
Pressure hPa : 750
Contr.-rod trav.mm: 10,5...10,6

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 9,6...9,8
2nd pressure hPa : 250
C-rod trav.mm : 10,3...10,4
3rd pressure hPa : 220
C-rod trav.mm : 10,0...10,2

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 104,5...107,5
1000H.: (102,0...110,0)
Dispersion cm³/ : -
1000H.: -

Remarks:

Because of flattening, set the spring
preload on new delivery-valve holders
to 2.9...3.1 mm.

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : SCA 14,2 A4

Edition : 17.11.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 087 372

Injection pump

Pump designation : PE8P120A920/4LS7002T

EP type number : 9 400 087 054

Governor

Governor design. : RQV200...1000PA547-2

Governor no. : 9 420 080 238

Customer-spec. information

Customer : SAAB-SCANIA

Engine : DSC 14 07

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 015

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 1 688 901 019Opening
pressure, bar : 207...210Perforated-plate
diameter mm : 0,8

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 5.00...5.10
: (4.95...5.15)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1-2-7-3-4-5-6-8

SD ang. spacing°CS: 0-45-90-135-180-225-
270-315

Tolerance + - ° : 0.5 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 13.20...13.30

Del.quantity cm3/ : 18.7...18.9

100H.: (18.4...19.2)

Dispersion cm3/ : 0.6

100H.: (0.9)

2nd speed 1/min: 225

Contr.-rod trav. m: 4.90...5.10

Del.quantity cm3/ : 1.0...1.4

100H.: (-)

Dispersion cm3/ : 0.3

100H.: (0.6)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 225

Sleeve travel mm: 1.00...1.60

2nd speed 1/min: 350

Sleeve travel mm: 2.50...2.90

3rd speed 1/min: 650

Sleeve travel mm: 4.60...4.90

4th speed 1/min: 1140

Sleeve travel mm: 8.40...8.50

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1000

Cont.-rod travlmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Charge press. hPa : 600

Del.quantity cm3/ : 187.0...189.0
1000H.: (184.0...192.0)

Dispersion cm3/ : 6.0

1000H.: (9.0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 56...64

Because of flattening, set the spring preload on new delivery-valve holders to 3.0...3.1 mm.

Testing:

1st c-rod trav.mm : 12.20
Speed 1/min : 1040...1050
2nd c-rod trav.mm : 4.00
Speed 1/min : 1150...1180
4th speed 1/min : 1250
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever

position degrees: 6...14

Testing:

Speed 1/min : 100
C-rod trav.mm min : 5.90
Speed 1/min : 225
C-rod trav.mm : 4.40...4.60
C-rod trav.mm : 2.00
Speed 1/min : 310...370

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500
Pressure hPa : 600
Contr.-rod trav.mm: 13.20...13.30

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 11.30...11.40
2nd pressure hPa : 355
C-rod trav.mm : 12.50...12.60
3rd pressure hPa : 260
C-rod trav.mm : 11.80...12.00

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 600
Speed 1/min : 1000
Del.quantity cm³/ : 183.0...191.0
1000H.: (181.0...193.0)

Charge press. hPa : -

Speed 1/min : 500
Del.quantity cm³/ : 137.0...141.0
1000H.: (135.0...143.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 M

Edition : 7,86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 022

Injection pump

Pump designation : PES6A100D410RS3032

Governor

Governor design. : RSV400...1100A2B2086
L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466T

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 413 385 007

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 1,95...2,05
: (1,90...2,10)

Contr.-rod trav.mm: 21,0

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 11,45

Del.quantity cm3/ : 10,9...11,1

Dispersion cm3/ : 0,30

2nd speed 1/min: 400

Contr.-rod trav. m: 6,8

Del.quantity cm3/ : 1,3...1,7

Dispersion cm3/ : 0,40

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 1200

Del.quantity cm3/ : 109,0...111,0

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 35...43

Testing:

1st c-rod trav.mm : 10,45

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1195...1225

4th speed 1/min : 1250

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 14...20

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 6,3

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 400

C-rod trav.mm : 6,8
C-rod trav.mm : 2,0
Speed 1/min : 460...520
Speed 1/min : 600
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 11,40...11,50
2nd speed 1/min : 1000
C-rod trav.mm : 11,35...11,65
3rd speed 1/min : 750
C-rod trav.mm : 12,75...12,95

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 420
Contr.-rod trav.mm: 12,75...12,85

Measurement

Speed 1/min : 500

1st pressure hPa : 200
C-rod trav.mm : 11,10...11,50

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200
Speed 1/min : 650
Del.quantity cm³/ : 126,0...129,0
Speed 1/min : 500
Del.quantity cm³/ : 78,5...81,5

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 A3

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 019

Injection pump

Pump designation : PES6A100D420LS3024

Governor

Governor design. : RSV375...1050A2B2072
R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2.0...2,1
: (1,95...2,15)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 10,35

Del.quantity cm3/ : 11,1...11,3

Dispersion cm3/ : 0,30

2nd speed 1/min: 375

Contr.-rod trav. m: 6,3

Del.quantity cm3/ : 1,7...2,3

Dispersion cm3/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm3/ : 111,0...113,0
1000H.: (109,0...115,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 47...55

Testing:

1st c-rod trav.mm : 9,35

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1170.. 1200

4th speed 1/min : 1250

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 24...32

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,7...5,9

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 375

C-rod trav.mm : 6,2...6,4
C-rod trav.mm : 2,0
Speed 1/min : 495...555

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 10,35
2nd speed 1/min : 700
C-rod trav.mm : 10,55...10,85
3rd speed 1/min : 600
C-rod trav.mm : 10,70...10,80

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 110,0...116,0
1000H.: (109,0...117,0)
Speed 1/min : 600
Del.quantity cm³/ : 108,0...111,0
1000H.: (104,0...115,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 K

Edition : 7,86

Superceeded :

Calibrating oil : ISO.3114

Combination no. : 9 400 230 023

Injection pump

Pump designation : PES6A100D410RS3037

Governor

Governor design. : RSV400...900A7B2088L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 AT-05

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 35...45

Overflow valve

: 1 417 413 000

Inlet press., bar : 1,5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 1,95...2,05

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

BASIC SETTING

1st speed 1/mi: 890

Contr.-rod trav.mm: 11,3

Del.quantity cm3/ : 11,2...11,4

Dispersion cm3/ : 0,30

2nd speed 1/min: 400

Contr.-rod trav. m: 6,2

Del.quantity cm3/ : 1,3...1,7

Dispersion cm3/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 890

Del.quantity cm3/ : 112,0...124,0

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 48...56

Testing:

1st c-rod trav.mm : 10,3

Speed 1/min : 915...925

2nd c-rod trav.mm : 4,0

Speed 1/min : 945...975

4th speed 1/min : 1030

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 5,7

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 400

C-rod trav.mm : 6,2

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 A4

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 024

Injection pump

Pump designation : PES6A100D420LS3024

Governor

Governor design. : RSV375...1100A2B2089
DR

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

1st version kW : 121

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,0...2,1

: (1,95...2,15)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 10,8

Del.quantity cm³/ : 10,8...11,0

Dispersion cm³/ : 0,30

2nd speed 1/min: 375

Contr.-rod trav. m: 7,1

Del.quantity cm³/ : 1,8...2,4

Dispersion cm³/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 108,0...110,0
1000H.: (106,0...112,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 50...58

Testing:

1st c-rod trav.mm : 9,8

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1230...1260

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 26...34

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 6,5...6,7

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
Speed 1/min : 375
C-rod trav.mm : 7,0...7,2
C-rod trav.mm : 2,0
Speed 1/min : 520...580
Speed 1/min : 600
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 10,80
2nd speed 1/min : 700
C-rod trav.mm : 11,0...11,30
3rd speed 1/min : 600
C-rod trav.mm : 11,15...11,25

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 104,5...110,5
1000H.: (103,5...111,5)
Speed 1/min : 600
Del.quantity cm³/ : 102,5...105,5
1000H.: (98,5...109,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 AS

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 025

Injection pump

Pump designation : PES6A100D420LS3024

Governor

Governor design. : RSV375...1050A2B2090
R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,0...2,1
: (1,95...2,15)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 12,05

Del.quantity cm3/: 11,8...12,0

Dispersion cm3/: 0,30

2nd speed 1/min: 375

Contr.-rod trav. m: 5,85

Del.quantity cm3/: 1,9...2,5

Dispersion cm3/: 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav.mmm: 0,3...1,0

Governor-spring reload

Notch setting x :

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm3/: 117,5...119,5
1000H.: (115,5...121,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 40,5...48,5

Testing:

1st c-rod trav.mm : 11,05

Speed 1/min : 1065...1075

2nd c-rod trav.mm : 4,0

Speed 1/min : 1150...1180

4th speed 1/min : 1260

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 19,5...27,5

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,35

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 375

C-rod trav.mm : 5,85
C-rod trav.mm : 2,0
Speed 1/min : 565...625
Speed 1/min : 600
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1050
C-rod trav.mm : 12,00...12,10
2nd speed 1/min : 700
C-rod trav.mm : 12,15...12,45
3rd speed 1/min : 600
C-rod trav.mm : 12,25...12,35

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ 1000H.: 116,5...122,5
1000H.: (115,5...123,5)
Speed 1/min : 600
Del.quantity cm³/ 1000H.: 117,0...120,0
1000H.: (113,0...124,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 5,5 B3

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 028

Injection pump

Pump designation : PES4A95D320LS2612

Governor

Governor design. : RSV425...1100A2B2109
R

Customer-spec. information

Customer : CASE

Engine : A 336 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 691 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 581 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,15...2,25
: (2,1...2,3)

Cam sequence : 1-3-4-2

SD ang. spacing °CS: 0-90-180-270
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 10,35

Del.quantity cm³/ : 8,4...8,6

Dispersion cm³/ : 0,30

2nd speed 1/min: 425

Contr.-rod trav. m: 7,0

Del.quantity cm³/ : 1,4...2,0

Dispersion cm³/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,7

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 84,0...86,0
1000H.: (82,0...88,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 49...57

Testing:

1st c-rod trav.mm : 9,35

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1215...1245

LOWEST RATED SPEED I

Control-lever

position degrees: 27...35

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 6,4...6,6

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 425

C-rod trav.mm : 6,9...7,1

C-rod trav.mm : 2,0

Speed 1/min : 550...610

Speed 1/min : 650

E22

C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 10,30...10,40

2nd speed 1/min : 750

C-rod trav.mm : 11,0...11,30

3rd speed 1/min : 600

C-rod trav.mm : 11,15...11,35

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750

Del.quantity cm³/ 1000H. : 87,0...93,0
(86,0...94,0)

Speed 1/min : 600

Del.quantity cm³/ 1000H. : 43,0...46,0
(41,0...48,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,2 F1

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 029

Injection pump

Pump designation : PES6A100D410RS3038

Governor

Governor design. : RSV400...1100A2B2106
L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 1,95...2,05

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 10,8

Del.quantity cm³/ : 10,8...11,0

Dispersion cm³/ : 0,30

2nd speed 1/min: 400

Contr.-rod trav. m: 6,6

Del.quantity cm³/ : 1,3...1,7

Dispersion cm³/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 108,0...110,0
1000H.: (106,0...112,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 36...44

Testing:

1st c-rod trav.mm : 9,8

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1205...1235

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 13...21

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 6,1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 400

C-rod trav.mm : 6,6

C-rod trav.mm : 2,0

Speed 1/min : 480...540
Speed 1/min : 850
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 10,75...10,85
2nd speed 1/min : 650
C-rod trav.mm : 11,75...12,05

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 650
Del.quantity cm³/ : 115,5...118,5
1000H.: (112,5...121,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 5,5 A1

Edition : 7.86

Superceded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 030

Injection pump

Pump designation : PES4A95D420LS3023

Governor

Governor design. : RSV375...1100A2B2108
R

Customer-spec. information

Customer : CASE

Engine : A 336 BDT

1st version kW : 79

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 691 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,0...2,1

: (1,95...2,15)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-3-4-2

SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 9,2

Del.quantity cm³/ : 9,2...9,4

Dispersion cm³/ : 0,30

2nd speed 1/min: 375

Contr.-rod trav. m: 5,8

Del.quantity cm³/ : 1,8...2,4

Dispersion cm³/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 92,0...94,0

1000H.: (89,0...97,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 45...53

Testing:

1st c-rod trav.mm : 8,2

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1180...1210

4th speed 1/min : 1250

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,2...5,4

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
Speed 1/min : 375
C-rod trav.mm : 5,7...5,9
C-rod trav.mm : 2,0
Speed 1/min : 470...530
Speed 1/min : 650
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 9,15...9,25
2nd speed 1/min : 750
C-rod trav.mm : 10,25...10,55
3rd speed 1/min : 600
C-rod trav.mm : 10,45...10,55

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ : 105,0...111,0
1000H.: (101,0...115,0)
Speed 1/min : 600
Del.quantity cm³/ : 105,0...107,0
1000H.: (101,0...111,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 M

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 031

Injection pump

Pump designation : PES6A95D420LS2461

Governor

Governor design. : RSC375...1050A2B2110
R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

1st version kW : 112

Speed 1/min: 2100

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,15...2,25
: (2,1...2,3)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 11,0

Del.quantity cm³/ : 10,2...10,3

Dispersion cm³/ : 0,30

2nd speed 1/min: 375

Contr.-rod trav. m: 5,8

Del.quantity cm³/ : 1,7...2,3

Dispersion cm³/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm³/ : 102,0...103,0

1000H.: (99,0...106,0)

HIGHEST RATED SPEED

1st version

Control-lever

position, degrees: 41...49

Testing:

1st c-rod trav.mm : 10,0

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1125...1155

4th speed 1/min : 1230

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 16...24

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,3

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
Speed 1/min : 375
C-rod trav.mm : 5,8
C-rod trav.mm : 2,0
Speed 1/min : 420...480
Speed 1/min : 600
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1050
C-rod trav.mm : 10,95...11,05
2nd speed 1/min : 750
C-rod trav.mm : 11,00...11,30
3rd speed 1/min : 650
C-rod trav.mm : 11,10...11,30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del. quantity cm³/ : 98,5...104,5
1000H.: (96,5...106,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 I

Edition : 7.86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 033

Injection pump

Pump designation : PES6A95D420LS2551

Governor

Governor design. : RSV400...1050AOB2114
R

Customer-spec. information

Customer : CASE

Engine : A 504 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,2...2,3
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 10,8

Del.quantity cm3/ : 7,8...8,0

Dispersion cm3/ : 0,30

2nd speed 1/min: 400

Contr.-rod trav. m: 7,8

Del.quantity cm3/ : 1,5...2,1

Dispersion cm3/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm3/ : 77,5...79,5
1000H.: (74,5...82,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 44...52

Testing:

1st c-rod trav.mm : 9,8

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1210...1240

3rd c-rod trav.mm : 2,5

Speed 1/min : 1255

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever
position degrees: 23,5...31,5

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 7,7...7,9

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 630...690
Speed 1/min : 680
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1050
C-rod trav.mm : 10,75...10,85
2nd speed 1/min : 700
C-rod trav.mm : 11,75...12,05
3rd speed 1/min : 600
C-rod trav.mm : 12,05...12,15

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ 1000H.: 84,0...90,0
(80,0...94,0)
Speed 1/min : 600
Del.quantity cm³/ 1000H.: 92,0...94,0
(90,0...98,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 5,5 B2

Edition : 7.86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 035

Injection pump

Pump designation : PES4A95D320LS2612

Governor

Governor design. : RSV400...1000A2B2128
R

Customer-spec. information

Customer : CASE

Engine : A 336 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,15...2,25

Contr.-rod trav.mm: 10,5

Cam sequence : 1-3-4-2

SD ang. spacing°CS: 0-90-180-270

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1000

Contr.-rod trav.mm: 10,5

Del.quantity cm³/ : 8,4...8,6

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 400

Contr.-rod trav. m: 6,9

Del.quantity cm³/ : 1,4...2,0

Dispersion cm³/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm³/ : 84,0...86,0

1000H.: (82,0...88,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 46...54

Testing:

1st c-rod trav.mm : 9,5

Speed 1/min : 1040...1050

2nd c-rod trav.mm : 4,0

Speed 1/min : 1115...1145

4th speed 1/min : 1170

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 26,5...34,5

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 6,3...6,5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 400
C-rod trav.mm : 6,0...7,0
C-rod trav.mm : 2,0
Speed 1/min : 550...610

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1000
C-rod trav.mm : 10,45...10,55
2nd speed 1/min : 750
C-rod trav.mm : 11,00...11,30
3rd speed 1/min : 600
C-rod trav.mm : 11,15...11,35

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ 87,0...93,0
1000H.: (86,0...94,0)
Speed 1/min : 600
Del.quantity cm³/ 90,0...92,0
1000H.: (87,0...95,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,0 B

Edition : 7.86

Superceeded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 037

Injection pump

Pump designation : PES8A9SD320RS2620

Governor

Governor design. : RQV325...1400AB1144R

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve
: 1 417 413 019

Inlet press., bar : 2.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 3,3...3,4
: (3,25...3,45)

Contr.-rod trav.mm: 10,5
Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90-135-180-225-

Tolerance + - ° : 270-315
: 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,8...11,9

Del.quantity cm³/ : 7,6...7,8

Dispersion cm³/ : 0,35

2nd speed 1/min: 350

Contr.-rod trav. m: 7,5...7,7

Del.quantity cm³/ : 0,9...1,5

Dispersion cm³/ : 0,35

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travemm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm³/ : 76,0...78,0

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 63,5...68,5

Testing:

1st c-rod trav.mm : 10,8

Speed 1/min : 1450...1460

2nd c-rod trav.mm : 4,0

Speed 1/min : 1555...1585

4th speed 1/min : 1650

C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 8...16

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 7,5...7,7

Testing:

Speed 1/min : 100

C-rod trav.mm min : 9,2

C-rod trav.mm : 2,0

Speed 1/min : 655...715

SWITCH-OVER POINT

Speed 1/min : 205...265

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 840

Del.quantity cm³/ : 62,0...64,0

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,0 E2

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 039

Injection pump

Pump designation : PES8A95D320RS2624

Governor

Governor design. : RQV325...1400AB1149-1R

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 019

Inlet press., bar : 2.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,55...2,65
: (2,5...2,7)

Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90-135-180-225-

Tolerance + - ° : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 12,3

Del.quantity cm³/ : 7,7...7,9

Dispersion cm³/ : 0,30

100H.: (0,60)

2nd speed 1/min: 325

Contr.-rod trav. m: 7,4

Del.quantity cm³/ : 0,9...1,5

Dispersion cm³/ : 0,30

100H.: (0,60)

SLEEVE POSITION

Control-lever position

Degree: MAX

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm³/ : 77,0...79,0

1000H.: (75,0...81,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 62...70

Testing:

1st c-rod trav.mm : 11,3

Speed 1/min : 1440...1450

2nd c-rod trav.mm : 4,0

Speed 1/min : 1545...1575

4th speed 1/min : 1640

C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 16...24

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 7,3...7,5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 9,1

C-rod trav.mm : 2,0

Speed 1/min : 630...690

SWITCH-OVER POINT

Speed 1/min : 170...250

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del.quantity cm³/ : 66,0...69,0
1000H.: (64,0...71,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3L

Edition : 7.86

Superceeded :

Calibrating oil : ISO.4113

Combination no. : 9 400 230 043

Injection pump

Pump designation : PES6A95D420LS255i

Governor

Governor design. : RSV375...1100AOB215S
R

Customer-spec. information

Customer : CASE

Engine : A-504 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 40...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,2...2,5
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 11,5

Del.quantity cm3/ : 10,0...10,2

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 7,2

Del.quantity cm3/ : 1,9...2,3

Dispersion cm3/ : 0,35

100H.: (0,60)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 100,0...102,0

1000H.: (98,0...104,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 47...55

Testing:

1st c-rod trav.mm : 10,5

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1200...1230

3rd c-rod trav.mm : 2,5

Speed 1/min : 1225

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 23...31

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 7,1...7,3

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 600...660

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 11,5
2nd speed 1/min : 700
C-rod trav.mm : 12,7...12,9
3rd speed 1/min : 600
C-rod trav.mm : 13,0...13,2

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 117,5...120,5
1000H.: (115,0...123,0)
Speed 1/min : 600
Del.quantity cm³/ : 117,0...120,0
1000H.: (115,0...122,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 I
 Edition : 7,86
 Superceded : -

Combination no. : 9 400 230 044

Injection pump
 Pump designation : PES6A100D410RS3040
 Governor
 Governor design. : RSV400...1000A2B2160
 Governor design. : L

Customer-spec. information
 Customer : JOHN DEERE

Engine : 6466 T

TEST BENCH REQUIREMENTS

Calibrating-gil
 inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1,5

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 175

Test inj. tubing : 1 680 750 008

Outside diameter
 x Wall thickness
 x Length mm : 6,00x2,00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Prestroke mm : 1,95...2,05
 : (1,9...2,1)

Contr.-rod trav.mm: 10,5
 Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300
 Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 9,3

Del.quantity cm³/ : 9,80...10,00

Dispersion cm³/ : 0,30

2nd speed 1/min: 400

Contr.-rod trav. m: 5,3

Del.quantity cm³/ : 1,20...1,80

Dispersion cm³/ : 0,40

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav.lmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 800

Del.quantity cm³/ : 98,0...100,0

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 45...53

Testing:

1st c-rod trav.mm : 8,3

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1185...1215

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 4,7...4,9

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 400

C-rod trav.mm : 5,2...5,4

C-rod trav.mm : 2,0

Speed 1/min : 480...540

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 9,3

2nd speed 1/min : 750

C-rod trav.mm : 10,6...10,8

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 70

Contr.-rod trav.mm: 9,65...9,75

Measurement

Speed 1/min : 500

1st pressure hPa : 170

C-rod trav.mm : 10,50...10,90

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 800

Speed 1/min : 750

Del. quantity cm³/ : 112,0...118,0

Speed 1/min : 500

Del. quantity cm³/ : 84,5...88,5

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 C3

Edition : 7.86

Superceded : -

Combination no. : 9 400 230 045

Injection pump

Pump designation : PES6A95D410RS2522-1

Governor

Governor design. : RSV425...1100A2B2161

Governor design. : L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 T

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 1,85...1,95
: (1,80...2,00)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 9,0

Del.quantity cm³/ : 8,7...8,9

Dispersion cm³/ : 0,30

100H.: (0,50)

2nd speed 1/min: 425

Contr.-rod trav. m: 5,8

Del.quantity cm³/ : 1,9...2,3

Dispersion cm³/ : 0,30

100H.: (0,50)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 600

Del.quantity cm³/ : 86,5...88,5

1000H.: (84,5...90,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 48...56

Testing:

1st c-rod trav.mm : 8,0

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1185...1215

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 24...32

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 5,2...5,4

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
Speed 1/min : 425
C-rod trav.mm : 5,7...5,9
C-rod trav.mm : 2,0
Speed 1/min : 560...620

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 9,0
2nd speed 1/min : 650
C-rod trav.mm : 10,25...10,55

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 100
Contr.-rod trav.mm: 10,35...10,45

Measurement

Speed 1/min : 500

1st pressure hPa : 150
C-rod trav.mm : 10,40...10,80

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 600
Speed 1/min : 650
Del.quantity cm³/ 101,0...107,0
1000H.: (100,0...108,0)
Speed 1/min : 500
Del.quantity cm³/ 89,0...93,0
1000H.: (87,0...95,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 C4
 Edition : 7.86
 Superceeded : -

Combination no. : 9 400 230 045

Injection pump
 Pump designation : PES6A95D410RS2522-1
 Governor
 Governor design. : RSV425...1100A2C2161
 Governor design. : L

Customer-spec. information
 Customer : JOHN DEERE

Engine : 6466 T

TEST BENCH REQUIREMENTS

Calibrating-gil
 inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 4 681 271 001

Outside diameter
 x Wall thickness
 x Length mm : 6,00x2,00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 27...29

Prestroke mm : 1,85...1,95
 : (1,80...2,00)
 Contr.-rod trav.mm: 10,5
 Cam sequence : 1-5-3-6-2-4

/

:

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0,5...0,75

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 9,0...9,1

Del.quantity cm3/ : 8,7...8,9

100H.: (8,4...9,0)

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 425

Contr.-rod trav. m: 5,5...5,7

Del.quantity cm3/ : 1,8...2,2

100H.: (1,6...2,5)

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travemm: 0,3...0,7

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 600

Del.quantity cm3/ : 86,5...88,5

1000H.: (84,0...90,0)

Dispersion cm3/ : 3,5

1000H.: (6,0)

HIGHEST RATED SPEED

1st version

Control-lever
 position degrees: 46...54

Testing:

1st c-rod trav.mm : 8,0

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1175...1205

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,4

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29
Setting point w/out aux. spring
Speed 1/min : 425
Contr.-rod trav.mm: 5,0...5,2
Speed 1/min : 425
C-rod trav.mm : 5,5...5,7
C-rod trav.mm : 2,0
Speed 1/min : 590...650

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 9,0...9,1
2nd speed 1/min : 650
C-rod trav.mm : 10,4...10,6

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 147
Contr.-rod trav.mm: 10,55...10,65

Measurement

Speed 1/min : 500

1st pressure hPa : 100
C-rod trav.mm : 10,2...10,6
C-rod trav.mm : 10,2...10,4

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 600
Speed 1/min : 650
Del.quantity cm³/ 1000H.: 102,5...105,5
Speed 1/min : 500
Del.quantity cm³/ 1000H.: -
1000H.: (87,0...95,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 J
Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 047

Injection pump
Pump designation : PES6A95D410RS2561
Governor
Governor design. : RSV600...1100A2B2049
-1L

Customer-spec. information
Customer : JOHN DEERE

Engine : 6466 T

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 413 385 007

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,35x1,675x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 1,85...1,95
: (1,80...2,00)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,7

Del.quantity cm3/: 10,7...10,9

Dispersion cm3/: 0,30

2nd speed 1/min: 600

Contr.-rod trav. m: 5,1

Del.quantity cm3/: 1,2...1,6

Dispersion cm3/: 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/: 107,0...109,0
1000H.: (104,0...112,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 44...52

Testing:

1st c-rod trav.mm : 9,7

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1200...1230

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 25...33

Setting point w/out aux. spring

Speed 1/min : 600

Contr.-rod trav.mm: 4,5...4,7

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 600

C-rod trav.mm : 5,0...5,2

C-rod trav.mm : 2,0

Speed 1/min : 720...780

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 10,7

2nd speed 1/min : 950

C-rod trav.mm : 1145...1165

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 950

Del. quantity cm³/1000H.: 120,0...124,0
(118,0...126,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 GS

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 049

Injection pump

Pump designation : PES6A95D320LS2647

Governor

Governor design. : RSV400...1050AOB2034
-1R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,95...3,05

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 9,5

Del.quantity cm³/ : 9,5...9,7

Dispersion cm³/ : 0,30

100H.: (0,60)

2nd speed 1/min: 400

Contr.-rod trav. m: 5,2

Del.quantity cm³/ : 1,8...2,4

Dispersion cm³/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm³/ : 95,0...97,0

1000H.: (93,0...99,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 36...44

Testing:

1st c-rod trav.mm : 8,5

Speed 1/min : 1080...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1165...1185

3rd c-rod trav.mm : 2,5

Speed 1/min : 1190...1210

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 5,1...5,3

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 585...645

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 9,5
2nd speed 1/min : 750
C-rod trav.mm : 10,00...10,30
3rd speed 1/min : 600
C-rod trav.mm : 10,10...10,20

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ : 101,0...107,0
1000H.: (100,0...108,0)
Speed 1/min : 600
Del.quantity cm³/ : 100,0...102,0
1000H.: (98,0...106,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 5,5 B4

Edition : 7,86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 050

Injection pump

Pump designation : PES4A95D320LS2612

Governor

Governor design. : RSV375...1100AOB2167

Customer-spec. information

Customer : CASE

Engine : A 336 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1,5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,15...2,25

Contr.-rod trav.mm: 10,5

Cam sequence : 1-3-4-2

SD ang. spacing°CS: 0-90-180-270

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 10,4

Del.quantity cm³/ : 8,8...9,0

Dispersion cm³/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 7,1

Del.quantity cm³/ : 1,5...2,1

Dispersion cm³/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 88,0...90,0

1000H.: (86,0...92,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 39...47

Testing:

1st c-rod trav.mm : 9,4

Speed 1/min : 1130...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1210...1230

3rd c-rod trav.mm : 2,5

Speed 1/min : 1240...1250

4th speed 1/min : 1350

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 7,0...7,2

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 570...640

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10,35...10,45
2nd speed 1/min : 700
C-rod trav.mm : 11,30...11,60
3rd speed 1/min : 600
C-rod trav.mm : 11,60...11,70

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 95,0...101,0
1000H.: (94,0...102,0)
Speed 1/min : 600
Del.quantity cm³/ : 101,0...103,0
1000H.: (97,0...107,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 K3

Edition : 7.86

Superceeded : -

Calibrating oil : ISO.4113

Combination no. : 9 400 230 052

Injection pump

Pump designation : PES6A95D420LS2551

Governor

Governor design. : RSV375...1050AOB2170

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating oil:
inlet temp. °C : 38...42

Overflow valve : 0 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 0 681 273 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,15...2,25

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 10,65

Del.quantity cm³/ : 8,2...8,4

Dispersion cm³/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 7,6

Del.quantity cm³/ : 1,7...2,3

Dispersion cm³/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm³/ : 81,5...83,5

1000H.: (79,5...85,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 36...44

Testing:

1st c-rod trav.mm : 9,65

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1235...1265

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 7,0...7,2

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 375

C-rod trav.mm : 7,5...7,7
C-rod trav.mm : 2,0
Speed 1/min : 690...750

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 10,55
2nd speed 1/min : 700
C-rod trav.mm : 10,95...11,25
3rd speed 1/min : 600
C-rod trav.mm : 11,15...11,25

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del. quantity cm³/ : 78,5...82,5
1000H.: (76,5...84,5)
Speed 1/min : 600
Del. quantity cm³/ : 81,5...83,5
1000H.: (77,5...87,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 5,5 C

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 053

Injection pump

Pump designation : PES4A95D320LS2649

Governor

Governor design. : RSV425...1100A2B2109
-1R

Customer-spec. information

Customer : CASE

Engine : A 336 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,95...3,05

Contr.-rod trav.mm: 10,5

Cam sequence : 1-3-4-2

SD ang. spacing°CS: 0-90-180-270

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 11,05

Del.quantity cm³/ : 11,8...12,0

Dispersion cm³/ : 0,30

100H.: (0,60)

2nd speed 1/min: 425

Contr.-rod trav. m: 5,2

Del.quantity cm³/ : 1,8...2,4

Dispersion cm³/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 117,5...119,5

1000H.: (115,5...121,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 41...49

Testing:

1st c-rod trav.mm : 10,05

Speed 1/min : 1130...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1215...1235

3rd c-rod trav.mm : 2,5

Speed 1/min : 1245...1255

4th speed 1/min : 1300

c-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 19...27

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 5,2

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 540...600

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 11,05
2nd speed 1/min : 750
C-rod trav.mm : 11,25...11,55
3rd speed 1/min : 600
C-rod trav.mm : 11,45...11,55

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del. quantity cm³/ 1000H.: 119,0...125,0
Speed 1/min : 600
Del. quantity cm³/ 1000H.: 121,0...123,0

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 K

Edition : 7.86

Superceded :

Calibrating oil : ISO.4113

Combination no. : 9 400 230 053

Injection pump

Pump designation : PES6A95D420LS2551

Governor

Governor design. : RSV375...1100A0B2170
-1R

Customer-spec. information

Customer : CASE

Engine : A 504 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,2...2,3
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

| SD ang. spacing°CS: 0-60-120-180-240-300
| Tolerance + - : 0,5(0,75)

| SD mark cyl. no. : 1

BASIC SETTING

| 1st speed 1/mi: 1100

| Contr.-rod trav.mm: 10,65

| Del.quantity cm3/ : 8,2...8,4

| Dispersion cm3/ : 0,30

| 100H.: (0,60)

| 2nd speed 1/min: 375

| Contr.-rod trav. m: 7,7

| Del.quantity cm3/ : 1,7...2,3

| Dispersion cm3/ : 0,30

| 100H.: (0,55)

SLEEVE POSITION

| Control-lever position

| Degree: LOSE

| Speed 1/min: 800

| Cont.-rod trav.mmm: 0,3...1,0

| Governor-spring reload

| Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

| 1st version

| Speed 1/min: 1100

| Del.quantity cm3/ : 81,5...83,5

| 1000H.: (79,5...85,5)

HIGHEST RATED SPEED

| 1st version

| Control-lever

| position degrees: 36...44

| Testing:

| 1st c-rod trav.mm : 9,65

| Speed 1/min : 1140...1150

| 2nd c-rod trav.mm : 4,0

| Speed 1/min : 1250...1280

| 4th speed 1/min : 1350

| C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

| Control-lever

| position degrees: 19...27

| Setting point w/out aux. spring

| Speed 1/min : 375

| Contr.-rod trav.mm: 7,1...7,3

| Testing:

Speed 1/min : 100
C-rod trav.mm min: 19,0
Speed 1/min : 375
C-rod trav.mm : 7,6...7,8
C-rod trav.mm : 2,0
Speed 1/min : 690...730

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10,65
2nd speed 1/min : 800
C-rod trav.mm : 10,90...11,30
3rd speed 1/min : 600
C-rod trav.mm : 11,20...11,30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ 81,0...85,0
1000H.: (79,0...87,0)
Speed 1/min : 600
Del.quantity cm³/ 82,0...84,0
1000H.: (80,0...88,0)

Remarks:

E07

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 G

Edition : 7.86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 054

Injection pump

Pump designation : PES6A95D320LS2647

Governor

Governor design. : RSV375...1100A2B2034
-2R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,75...2,85

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 12,3

Del.quantity cm3/ : 13,5...13,7

Dispersion cm3/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 5,3

Del.quantity cm3/ : 1,5...2,1

Dispersion cm3/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 134,5...136,5

1000H.: (132,5...138,5)

Dispersion cm3/ : 3,0

1000H.: (6,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 49...57

Testing:

1st c-rod trav.mm : 11,3

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1210...1240

3rd c-rod trav.mm : 2,5

Speed 1/min : 1250

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 23...31

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,2...5,4

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 520...580

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 12,3
2nd speed 1/min : 800
C-rod trav.mm : 12,45...12,75
3rd speed 1/min : 600
C-rod trav.mm : 12,65...12,75

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ 1000H.: 134,5...140,5
(133,5...141,5)

Remarks:

E09

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 G1

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 055

Injection pump

Pump designation : PES6A95D320LS2647

Governor

Governor design. : RSV375...1050A2B2034
-3R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values _____

START OF DELIVERY

Prestroke mm : 2,55...2,65

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 12,9

Del.quantity cm³/ : 14,2...14,4

Dispersion cm³/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 5,6

Del.quantity cm³/ : 1,7...2,3

Dispersion cm³/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 17min: 800

Cont.-rod travemm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm³/ : 141,5...143,5

1000H.: (139,5...145,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 46...54

Testing:

1st c-rod trav.mm : 11,9

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1160...1190

3rd c-rod trav.mm : 2,5

Speed 1/min : 1200

4th speed 1/min : 1250

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,5...5,7

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 545...605

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 12,9
2nd speed 1/min : 750
C-rod trav.mm : 13,55...13,85
3rd speed 1/min : 600
C-rod trav.mm : 13,65...13,75

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ : 145,0...151,0
1000H.: (144,0...152,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 G4

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 056

Injection pump

Pump designation : PES6A95D320LS2647

Governor

Governor design. : RSV375...1050A2B2034
-4R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,75...2,85

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 11,8

Del.quantity cm³/ : 12,8...13,0

Dispersion cm³/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 5,0

Del.quantity cm³/ : 1,4...2,0

Dispersion cm³/ : 0,30

100H.: (0,60)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm³/ : 127,5...129,5

1000H.: (125,5...131,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 40...48

Testing:

1st c-rod trav.mm : 10,8

Speed 1/min : 1080...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1165...1185

3rd c-rod trav.mm : 2,5

Speed 1/min : 1200

5th speed 1/min : 1250

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 18...26

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 4,9...5,1

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,6
Speed 1/min : 510...570

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 11,8
2nd speed 1/min : 750
C-rod trav.mm : 11,95...12,25
3rd speed 1/min : 600
C-rod trav.mm : 12,15...12,25

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ 1000H.: 128,0...134,0
(127,0...135,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 H

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 058

Injection pump

Pump designation : PES6A95D320LS2647

Governor

Governor design. : RSV400...1100A2B2172
R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 9 681 238 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses.
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,95...3,05
: (2,85...3,15)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 9,8

Del.quantity cm3/ : 10,3...10,5

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 400

Contr.-rod trav. m: 5,2

Del.quantity cm3/ : 1,8...2,2

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav.mmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 102,5...104,5

1000H.: (100,5...106,5)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 46...54

Testing:

1st c-rod trav.mm : 8,8

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1185...1215

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 4,6...4,8

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 400
C-rod trav.mm : 5,1...5,3
C-rod trav.mm : 2,0
Speed 1/min : 560...620

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 9,8
2nd speed 1/min : 750
C-rod trav.mm : 10,55...10,75
3rd speed 1/min : 600
C-rod trav.mm : 10,95...11,05

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ 1000H.: 110,0...114,0
(108,5...116,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 G2

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 059

Injection pump

Pump designation : PES6A95D320LS2647

Governor

Governor design. : RSV375...1050AOB2034
-6R

Customer-spec. information

Customer : CASE

Engine : A 504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,95...3,05

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 10,5

Del.quantity cm3/ : 11,0...11,2

Dispersion cm3/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 5,2

Del.quantity cm3/ : 1,5...2,1

Dispersion cm3/ : 0,30

100H.: (0,60)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm3/ : 109,5...111,5

1000H.: (107,5...113,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 33,5...41,5

Testing:

1st c-rod trav.mm : 9,5

Speed 1/min : 1080...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1165...1185

3rd c-rod trav.mm : 2,5

Speed 1/min : 1200

4th speed 1/min : 1250

C-rod trav.mm : 0,3...1,7.

LOWEST RATED SPEED I

Control-lever
position degrees: 17,5...25,5

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,1...5,3

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 535...595

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 10,5
2nd speed 1/min : 750
C-rod trav.mm : 11,05...11,35
3rd speed 1/min : 600
C-rod trav.mm : 11,35...11,45

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ 1000H.: 114,0...120,0
1000H.: (113,0...121,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 G3

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 060

Injection pump

Pump designation : PES6A95D320LS2547

Governor

Governor design. : RSV375...1050AOB2034
-7R

Customer-spec. information

Customer : CASE

Engine : A 504 BTD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,75...2,85

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 12,35

Del.quantity cm3/ : 13,5...13,7

Dispersion cm3/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 5,0

Del.quantity cm3/ : 1,4...2,0

Dispersion cm3/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm3/ : 135,0...137,0

1000H.: (133,0...139,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 42...50

Testing:

1st c-rod trav.mm : 11,35

Speed 1/min : 1080...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1160...1180

3rd c-rod trav.mm : 2,5

Speed 1/min : 1200

4th speed 1/min : 1250

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 4,9...5,1

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 540...600

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 12,35
2nd speed 1/min : 800
C-rod trav.mm : 12,90...13,20
3rd speed 1/min : 600
C-rod trav.mm : 13,05...13,15

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ 1000H.: 140,0...146,0
1000H.: (139,0...147,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 5,5 B

Edition : 7.86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 062

Injection pump

Pump designation : PES4A95D320LS2612

Governor

Governor design. : RSV425...1100AOB2167
-1R

Customer-spec. information

Customer : CASE

Engine : A 336 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 70:

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,2...2,3
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-3-4-2

| SD ang. spacing°CS: 0-90-180-270
| Tolerance + - : 0,5(0,75)

| SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,4

Del.quantity cm3/ : 8,5...8,7

Dispersion cm3/ : 0,30

100H.: (0,60)

2nd speed 1/min: 425

Contr.-rod trav. m: 7,0

Del.quantity cm3/ : 1,4...2,0

Dispersion cm3/ : 0,30

100H.: (0,55)

SLEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 85,0...87,0

1000H.: (83,0...89,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 36...44

Testing:

1st c-rod trav.mm : 9,4

Speed 1/min : 1130...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1225...1255

4th speed 1/min : 1350

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 6,4...6,6

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 425
C-rod trav.mm : 6,9...7,1
C-rod trav.mm : 2,0
Speed 1/min : 570...640

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10,4
2nd speed 1/min : 700
C-rod trav.mm : 11,25...11,55
3rd speed 1/min : 600
C-rod trav.mm : 11,55...11,65

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ 1000H.: 93,5...99,5
Speed 1/min : 600
Del.quantity cm³/ 1000H.: 99,0...101,0

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 K1

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 063

Injection pump

Pump designation : PES6A95D420LS2551

Governor

Governor design. : RSV375...1100AOB2170
-1R

Customer-spec. information

Customer : CASE

Engine : A 504 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,2...2,3
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,65

Del.quantity cm3/ : 8,2...8,4

Dispersion cm3/ : 0,30

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 7,7

Del.quantity cm3/ : 1,7...2,3

Dispersion cm3/ : 0,30

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 81,5...83,5

1000H.: (79,5...85,5)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 36...44

Testing:

1st c-rod trav.mm : 9,65

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1250...1280

4th speed 1/min : 1350

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 19...27

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 7,1...7,3

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 375
C-rod trav.mm : 7,6...7,8
C-rod trav.mm : 2,0
Speed 1/min : 690...730

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10,65
2nd speed 1/min : 800
C-rod trav.mm : 10,90...11,30
3rd speed 1/min : 600
C-rod trav.mm : 11,20...11,30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ : 81,0...85,0
1000H.: (79,0...87,0)
Speed 1/min : 600
Del.quantity cm³/ : 82,0...84,0
1000H.: (78,0...88,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 F2

Edition : 7,86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 065

Injection pump

Pump designation : PES6A100D410RS3038-1

Governor

Governor design. : RSV450...1100A2B2106
-1L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 AT 06

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 1,95...2,05
: (1,90...2,10)

Contr.-rod trav.mm : 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,3

Del.quantity cm³/ : 10,2...10,4

Dispersion cm³/ : 0,30

2nd speed 1/min: 450

Contr.-rod trav. m: 6,1

Del.quantity cm³/ : 5,1...5,2

Dispersion cm³/ : 0,20

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 102,0...104,0
1000H.: (100,0...106,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 41...49

Testing:

1st c-rod trav.mm : 9,3

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1195...1225

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 17...25

Setting point w/out aux. spring

Speed 1/min : 450

Contr.-rod trav.mm: 5,5...5,7

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 450

C-rod trav.mm : 6,0...6,2
C-rod trav.mm : 2,0
Speed 1/min : 510...570
Speed 1/min : 850
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 10,30
2nd speed 1/min : 650
C-rod trav.mm : 11,30...11,60

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 650
Del. quantity cm³/ : 109,0...113,0
1000H.: (108,0...114,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H1

Edition : 7.86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 066

Injection pump

Pump designation : PES6A100D410RS2676

Governor

Governor design. : RSV425...1100A2B2161
-1L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 T

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,40...2,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 9,4

Del.quantity cm³/ : 9,9...10,1

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 425

Contr.-rod trav. m: 5,6

Del.quantity cm³/ : 2,1...2,5

Dispersion cm³/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 600

Del.quantity cm³/ : 99,0...101,0
1000H.: (97,0...103,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 46...54

Testing:

1st c-rod trav.mm : 8,4

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1195...1225

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 5,5...5,7

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 425
C-rod trav.mm : 5,5...5,7
C-rod trav.mm : 2,0
Speed 1/min : 635...695

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 9,4
2nd speed 1/min : 750
C-rod trav.mm : 10,6...10,8

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 170
Contr.-rod trav.mm: 10,25...10,35

Measurement

Speed 1/min : 500

1st pressure hPa : 80
C-rod trav.mm : 9,40...9,80
C-rod trav.mm : 9,20

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 600
Speed 1/min : 750
Del.quantity cm³/ : 116,0...119,0
1000H.: (113,5...121,5)
Speed 1/min : 500
Del.quantity cm³/ : 86,5...89,5
1000H.: (84,0...92,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H2
Edition : 7.86

Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 9 400 230 066

Injection pump
Pump designation : PES6A100D410RS2676
Governor
Governor design. : RSV435...1100A2C2161
-1L

Customer-spec. information
Customer : JOHN DEERE

Engine : 6466 T

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,40...2,60)
Contr.-rod trav.mm: 10,5
Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 9,4

Del.quantity cm3/ : 9,9...10,1

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 425

Contr.-rod trav. m: 5,6

Del.quantity cm3/ : 2,1...2,5

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position
Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 600

Del.quantity cm3/ : 99,0...101,0

1000H.: (97,0...103,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 46...54

Testing:

1st c-rod trav.mm : 8,4

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1195...1225

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 5,0...5,2

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 425
C-rod trav.mm : 5,5...5,7
C-rod trav.mm : 2,0
Speed 1/min : 635...695

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 9,4
2nd speed 1/min : 750
C-rod trav.mm : 10,6...10,8

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 170
Contr.-rod trav.mm: 10,25...10,35

Measurement

Speed 1/min : 500

1st pressure hPa : 80
C-rod trav.mm : 9,40...9,80
C-rod trav.mm : 9,20

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 600
Speed 1/min : 750
Del.quantity cm³/ 1000H.: 116,0...119,0
Del.quantity cm³/ 1000H.: (113,5...121,5)
Speed 1/min : 500
Del.quantity cm³/ 1000H.: 86,5...89,5
Del.quantity cm³/ 1000H.: (84,0...92,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 067

Injection pump

Pump designation : PES6A100D410RS2676

Governor

Governor design. : RSV425...1100A2C2161
-2L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,40...2,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,2...10,3

Del.quantity cm³/ : 11,1...11,3

Dispersion cm³/ : 0,35

100H.: (0,6)

2nd speed 1/min: 425

Contr.-rod trav. m: 5,8...6,0

Del.quantity cm³/ : 2,4...2,8

Dispersion cm³/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 800

Del.quantity cm³/ : 111,0...113,0

1000H.: (109,0...115,0)

Dispersion cm³/ : 3,5

1000H.: (6,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 43...51

Testing:

1st c-rod trav.mm : 9,2

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1190...1220

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,4

LOWEST RATED SPEED I

Control-lever

position degrees: 18...26

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 5,3...5,5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 425
C-rod trav.mm : 5,8...6,0
C-rod trav.mm : 2,0
Speed 1/min : 600...660

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10,2...10,3
2nd speed 1/min : 750
C-rod trav.mm : 11,4...11,6

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 230
Contr.-rod trav.mm: 11,25...11,35

Measurement

Speed 1/min : 500

1st pressure hPa : 100
C-rod trav.mm : 9,80...10,20
C-rod trav.mm : 9,45

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 800
Speed 1/min : 750
Del.quantity cm³/ : 127,5...130,5
1000H.: (125,0...133,0)
Speed 1/min : 500
Del.quantity cm³/ : 87,5...90,5
1000H.: (85,0...93,0)

Remarks:

F03

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H3

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 068

Injection pump

Pump designation : PES6A100D410RS2676-1

Governor

Governor design. : RSV450...1000A1B2186
L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,4...2,6)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

| SD ang. spacing°CS: 0-60-120-180-240-300
| Tolerance + - : 0,5 (0,75)

| SD mark cyl. no. : 1

BASIC SETTING

| 1st speed 1/mi: 1000

| Contr.-rod trav.mm: 9,9

| Del.quantity cm3/ : 10,5...10,7

| Dispersion cm3/ : 0,35

| 100H.: (0,60)

| 2nd speed 1/min: 450

| Contr.-rod trav. m: 5,4

| Del.quantity cm3/ : 1,8...2,2

| Dispersion cm3/ : 0,35

| 100H.: (0,60)

SLEEVE POSITION

| Control-lever position

| Degree: LOSE

| Speed 1/min: 800

| Cont.-rod travellmm: 0,3...1,0

| Governor-spring reload

| Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

| 1st version

| Speed 1/min: 1000

| Del.quantity cm3/ : 105,0...107,0
| 1000H.: (103,0...109,0)

HIGHEST RATED SPEED

| 1st version

| Control-lever
| position degrees: 48...56

| Testing:

| 1st c-rod trav.mm : 8,9
| Speed 1/min : 1045...1055
| 2nd c-rod trav.mm : 4,0
| Speed 1/min : 1070...1100
| 4th speed 1/min : 1150
| C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

| Control-lever
| position degrees: 22...30
| Setting point w/out aux. spring
| Speed 1/min : 450
| Contr.-rod trav.mm: 4,8...5,0
| Speed 1/min : 450
| C-rod trav.mm : 5,3...5,5

C-rod trav.mm : 2,0
Speed 1/min : 560...620

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1000

C-rod trav.mm : 9,9

2nd speed 1/min : 700

C-rod trav.mm : 10,3...10,5

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700

Del.quantity cm³/ : 109,5...112,5

1000H.: (107,0...115,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H4

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 068

Injection pump

Pump designation : PES6A100D410RS2676-1

Governor

Governor design. : RSV450...1000A1C2186

L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,40...2,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 9,9

Del.quantity cm³/: 10,5...10,7

Dispersion cm³/: 0,35

100H.: (0,60)

2nd speed 1/min: 450

Contr.-rod trav. m: 5,4

Del.quantity cm³/: 1,8...2,2

Dispersion cm³/: 0,35

100H.: (0,60)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav.mmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm³/: 105,0...107,0
1000H.: (103,0...109,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 48...56

Testing:

1st c-rod trav.mm : 8,9
Speed 1/min : 1045...1055
2nd c-rod trav.mm : 4,0
Speed 1/min : 1070...1100
4th speed 1/min : 1150
C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever
position degrees: 22...30
Setting point w/out aux. spring
Speed 1/min : 450
Contr.-rod trav.mm: 4,8...5,0
Speed 1/min : 450
C-rod trav.mm : 5,3...5,5

C-rod trav.mm : 2,0
Speed 1/min : 560...620

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1000

C-rod trav.mm : 9,9

2nd speed 1/min : 700

C-rod trav.mm : 10,3...10,5

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700

Del.quantity cm³/ 1000H.: 109,5...112,5
(107,0...115,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H6

Edition : 7.86

Superceded

Calibrating oil : OSO-4113

Combination no. : 9 400 230 070

Injection pump

Pump designation : PES6A100D410RS2676-1

Governor

Governor design. : RSV4C0...950A1B2186.
2L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466-T

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values _____

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,75...2,95)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 950

Contr.-rod trav.mm: 10,2

Del.quantity cm³/ : 9,4...9,6

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 400

Contr.-rod trav. m: 6,5

Del.quantity cm³/ : 1,8...2,2

Dispersion cm³/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travemm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 950

Del.quantity cm³/ : 94,0...96,0

100H.: (92,0...98,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 47...55

Testing:

1st c-rod trav.mm : 9,2

Speed 1/min : 995...1005

2nd c-rod trav.mm : 4,0

Speed 1/min : 1050...1080

4th speed 1/min : 1150

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 5,9...6,1

Speed 1/min : 400

C-rod trav.mm : 6,4...6,6

C-rod trav.mm : 2,0
Speed 1/min : 555...615

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 950

C-rod trav.mm : 10,2

2nd speed 1/min : 650

C-rod trav.mm : 11,4...11,6

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 650

Del.quantity cm³/ 1000H.: 112,0...115,0
(109,5...117,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H8

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 071

Injection pump

Pump designation : PES6A100D410RS2676-1

Governor

Governor design. : RSV400...900A7B2088-
1

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 T

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,4...2,6)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 890

Contr.-rod trav.mm: 12,0

Del.quantity cm3/ : 13,7...13,9

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 400

Contr.-rod trav. m: 5,1

Del.quantity cm3/ : 1,3...1,7

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 49...57

Testing:

1st c-rod trav.mm : 11,0

Speed 1/min : 915...925

2nd c-rod trav.mm : 4,0

Speed 1/min : 945...975

4th speed 1/min : 1050

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 4,5...4,7

Speed 1/min : 400

C-rod trav.mm : 5,0...5,2

C-rod trav.mm : 2,0

Speed 1/min : 430...490

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 890

Del. quantity cm³/ : 137,0...139,0
1000H.: (135,0...141,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H7
Edition : 7.86

Superceded : -

Calibrating oil : ISO-4113

Combination no. : 9 400 230 072

Injection pump

Pump designation : PES6A100D410RS2676

Governor

Governor design. : RSV400...1100A2B2086
-1L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,40...2,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,35

Del.quantity cm³/ : 11,0...11,2

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 400

Contr.-rod trav. m: 5,3

Del.quantity cm³/ : 1,3...1,7

Dispersion cm³/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa: 600

Del.quantity cm³/ : 110,0...112,0

1000H.: (108,0...114,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 48...56

Testing:

1st c-rod trav.mm : 9,35

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1195...1225

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 24...32

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 4,7...4,9

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 400
C-rod trav.mm : 5,2...5,4
C-rod trav.mm : 2,0
Speed 1/min : 600...660

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 10,35
2nd speed 1/min : 750
C-rod trav.mm : 11,65...11,85

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 210
Contr.-rod trav.mm: 11,25...11,35

Measurement

Speed 1/min : 500

1st pressure hPa : 70
C-rod trav.mm : 9,90...10,30
C-rod trav.mm : 9,40

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 600
Speed 1/min : 750
Del.quantity cm³/ : 126,5...129,5
1000H.: (124,0...132,0)
Speed 1/min : 500
Del.quantity cm³/ : 87,5...90,5
1000H.: (85,0...93,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,0 E1

Edition : 7,86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 074

Injection pump

Pump designation : PES8A95D320RS2624

Governor

Governor design. : RQV325...1400AB1149-
2R

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 019

Inlet press., bar : 2.8

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,55...2,65
: (2,50...2,70)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315
Tolerance + - ° : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,3

Del.quantity cm3/ : 7,0...7,2

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 325

Contr.-rod trav. m: 7,1

Del.quantity cm3/ : 1,2...1,6

Dispersion cm3/ : 0,35

100H.: (0,60)

SLEEVE POSITION

Control-lever position

Degree: MAX

Cont.-rod travelm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm3/ : 69,5...71,5

1000H.: (67,5...73,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 60..68

Testing:

1st c-rod trav.mm : 10,3

Speed 1/min : 1440...1450

2nd c-rod trav.mm : 4,0

Speed 1/min : 1525...1555

LOWEST RATED SPEED I

Control-lever

position degrees: 7...15

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 7,0...7,2

Testing:

Speed 1/min : 100

C-rod trav.mm min : 9,4

C-rod trav.mm : 2,0

Speed 1/min : 630...690

SWITCH-OVER POINT

Speed 1/min : 180...250

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del. quantity cm³/ : 56,0...59,0
1000H.: (54,0...61,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,0 E

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 075

Injection pump

Pump designation : PES8A95D320RS2624

Governor

Governor design. : RQV325...1400AB1149-
3R

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 019

Inlet press., bar : 2.8

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,55...2,65
: (2,75...2,95)

Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90-135-180-225-

Tolerance + - ° : 0,5(0,75) 270-315

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 12,2

Del.quantity cm3/ : 7,8...8,0

Dispersion cm3/ : 0,60

2nd speed 1/min: 325

Contr.-rod trav. m: 7,1

Del.quantity cm3/ : 1,2...1,6

Dispersion cm3/ : 0,55

SLEEVE POSITION

Control-lever position

Degree: MAX

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm3/ : 77,5...79,5
1000H.: (75,5...81,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 62,0...70,0

Testing:

1st c-rod trav.mm : 11,2
Speed 1/min : 1440...1450
2nd c-rod trav.mm : 4,0
Speed 1/min : 1550...1580
4th speed 1/min : 1630
C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
position degrees: 7...15
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 7,0...7,2

Testing:

Speed 1/min : 100
C-rod trav.mm min : 9,1
C-rod trav.mm : 2,0
Speed 1/min : 630...690

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del. quantity cm³/ : 67,0...69,0
1000H.: (65,0...71,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,0 C1

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 077

Injection pump

Pump designation : PES8A95D320RS2620

Governor

Governor design. : RQV325...1400AB1207

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 019

Inlet press., bar : 2.5

Calibrating nozzle-holder

assembly : 0 681 343 009

Opening

pressure, bar : 172...175

Test inj. tubing : 9 681 230 702

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,3...3,4

: (3,25...3,45)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90-135-180-225-

Tolerance + - ° : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,40

Del.quantity cm³/ : 7,1...7,3

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 325

Contr.-rod trav. m: 7,0

Del.quantity cm³/ : 0,9...1,3

Dispersion cm³/ : 0,35

100H.: (0,60)

SLEEVE POSITION

Control-lever position

Degree: MAX

Speed 1/min: 1600

Cont.-rod travelmm: 8,0

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm³/ : 71,0...73,0

1000H.: (69,0...75,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 59...67

Testing:

1st c-rod trav.mm : 10,4

Speed 1/min : 1445...1465

2nd c-rod trav.mm : 4,0

Speed 1/min : 1540...1580

4th speed 1/min : 1650

C-rod trav.mm : 0...1,4

LOWEST RATED SPEED I

Control-lever

position degrees: 6...14

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 6,9...7,1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8,0

Speed 1/min : 225

C-rod trav.mm : 7,5...9,0

C-rod trav.mm : 2,0

Speed 1/min : 610...680

TORQUE CONTROL

Dimension a mm : 0,4

Torque-control curve - 1st version

1st speed 1/min : 1400

C-rod trav.mm : 11,4

2nd speed 1/min : 1200

C-rod trav.mm : 11,5...11,7

3rd speed 1/min : 840

C-rod trav.mm : 11,8...11,9

SWITCH-OVER POINT

Speed 1/min : 120...190

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 840

Del.quantity cm³/ 1000H.: 58,0...61,0
(55,5...63,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 H9

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 078

Injection pump

Pump designation : PES6A100D410RS2676-1

Governor

Governor design. : RSV500...900A1B2186-
3L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,4...2,6)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 900

Contr.-rod trav.mm: 10,9

Del.quantity cm3/ : 11,8...12,0

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 500

Contr.-rod trav. m: 4,9

Del.quantity cm3/ : 1,2...1,6

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 900

Del.quantity cm3/ : 118,0...120,0

1000H.: (116,0...122,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 42...50

Testing:

1st c-rod trav.mm : 9,9

Speed 1/min : 930...940

2nd c-rod trav.mm : 4,0

Speed 1/min : 965...995

4th speed 1/min : 1050

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30

Setting point w/out aux. spring

Speed 1/min : 500

Contr.-rod trav.mm: 4,4...4,6

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 500
C-rod trav.mm : 4,9...5,1
C-rod trav.mm : 2,0
Speed 1/min : 560...620

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 900
C-rod trav.mm : 10,9
2nd speed 1/min : 650
C-rod trav.mm : 12,1...12,3

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 650
Del.quantity cm³/ : 132,5...135,5
1000H.: (130,0...138,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,0 C

Edition : 7.86

Superceeded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 079

Injection pump

Pump designation : PESBA95D320RS2620

Governor

Governor design. : RQV325...1400AB1207-
1R

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 019

Inlet press., bar : 2.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 702

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,3...3,4
: (3,25...3,45)

Contr.-rod trav.mm: 10,5
Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90=135-180-225-

270-315
Tolerance + - ° : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,75

Del.quantity cm3/ : 7,5...7,7

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 325

Contr.-rod trav. m: 7,2

Del.quantity cm3/ : 0,9...1,3

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: MAX

Speed 1/min: 1600

Cont.-rod travelmm: 8,0

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm3/ : 75,0...77,0

1000H.: (73,0...79,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 59...67

Testing:

1st c-rod trav.mm : 10,75

Speed 1/min : 1445...1465

2nd c-rod trav.mm : 4,0

Speed 1/min : 1555...1595

4th speed 1/min : 1650

C-rod trav.mm : 0...1,4

LOWEST RATED SPEED I

Control-lever

position degrees: 7...15

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 7,1...7,3

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8,0

Speed 1/min : 225

C-rod trav.mm : 7,5...9,0
C-rod trav.mm : 2,0
Speed 1/min : 625...695

TORQUE CONTROL

Dimension a mm : 0,4
Torque-control curve - 1st version
1st speed 1/min : 1400
C-rod trav.mm : 11,75
2nd speed 1/min : 1200
C-rod trav.mm : 11,9...12,1
3rd speed 1/min : 845
C-rod trav.mm : 12,15...12,35

SWITCH-OVER POINT

Speed 1/min : 120...190

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 845
Del. quantity cm³/ : 63,5...66,5
1000H.: (61,0...69,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 D1

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 230 080

Injection pump

Pump designation : PES6A95D420LS2551

Governor

Governor design. : RSV375...1100AOB2166
-1R

Customer-spec. information

Customer : CASE

Engine : A 504 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Calibrating-oil
return temp. °C : 38...42

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,2...2,3
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-S-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 10,5

Del.quantity cm3/ : 7,6...7,8

Dispersion cm3/ : 0,35

100H.: (0,55)

2nd speed 1/min: 375

Contr.-rod trav. m: 7,8

Del.quantity cm3/ : 1,6...2,0

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav.mm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 76,0...78,0

1000H.: (74,0...80,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 42...50

Testing:

1st c-rod trav.mm : 9,5

Speed 1/min : 1130...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1230...1250

3rd c-rod trav.mm : 2,0

Speed 1/min : 1275...1285

4th speed 1/min : 1350

c-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 36...44

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 7,7...7,9

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 670...730

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10,50
2nd speed 1/min : 700
C-rod trav.mm : 11,80...12,00
3rd speed 1/min : 600
C-rod trav.mm : 12,15...12,25

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 86,5...89,5
1000H.: (84,0...92,0)
Speed 1/min : 600
Del.quantity cm³/ : 91,0...94,0
1000H.: (89,0...96,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 5,5 B1

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 081

Injection pump

Pump designation : PES4A95D320LS2612

Governor

Governor design. : RSV375...1100AOB2167
-2R

Customer-spec. information

Customer : CASE

Engine : A 336 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,15...2,25
: (2,1...2,2)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-3-4-2

SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,4

Del.quantity cm³/ : 8,8...9,0

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 7,1

Del.quantity cm³/ : 1,6...2,0

Dispersion cm³/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 88,0...90,0

1000H.: (86,0...90,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 39...47

Testing:

1st c-rod trav.mm : 9,4

Speed 1/min : 1130...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1210...1230

3rd c-rod trav.mm : 2,5

Speed 1/min : 1240...1250

4th speed 1/min : 1350

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever
position degrees: 22...30

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 7,0...7,2

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
C-rod trav.mm : 2,0
Speed 1/min : 570...640

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10,40
2nd speed 1/min : 700
C-rod trav.mm : 11,35...11,55
3rd speed 1/min : 600
C-rod trav.mm : 11,60...11,70

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 96,5...99,5
1000H.: (94,0...102,0)
Speed 1/min : 600
Del.quantity cm³/ : 100,0...103,0
1000H.: (98,0...105,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 K2

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 082

Injection pump

Pump designation : PES6A95D420LS2551

Governor

Governor design. : RSV375...1100A0B2170
-2R

Customer-spec. information

Customer : CASE

Engine : A 504 BD

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,2...2,3
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

| SD ang. spacing°CS: 0-60-120-180-240-300
| Tolerance + - : 0,5(0,75)

| SD mark cyl. no. : 1

BASIC SETTING

| 1st speed 1/mi: 1100

| Contr.-rod trav.mm: 10,65

| Del.quantity cm3/l : 8,2...8,4

| Dispersion cm3/l : 0,35

| 100H.: (0,60)

| 2nd speed 1/min: 375

| Contr.-rod trav. m: 7,7

| Del.quantity cm3/l : 1,8...2,2

| Dispersion cm3/l : 0,35

| 100H.: (0,55)

SLEEVE POSITION

| Control-lever position

| Degree: LOSE

| Speed 1/min: 800

| Cont.-rod travelmm: 0,3...1,0

| Governor-spring reload

| Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

| 1st version

| Speed 1/min: 1100

| Del.quantity cm3/l : 81,5...83,5

| 100H.: (79,5...85,5)

HIGHEST RATED SPEED

| 1st version

| Control-lever
position degrees: 36...44

| Testing:

| 1st c-rod trav.mm : 9,65

| Speed 1/min : 1140...1105

| 2nd c-rod trav.mm : 4,0

| Speed 1/min : 1250...1280

LOWEST RATED SPEED I

| Control-lever

| position degrees: 19...27

| Setting point w/out aux. spring

| Speed 1/min : 375

| Contr.-rod trav.mm: 7,1...7,3

| Testing:

| Speed 1/min : 100

| C-rod trav.mm min : 19,0

Speed 1/min : 375
C-rod trav.mm : 7,6...7,8
C-rod trav.mm : 2,0
Speed 1/min : 670...730

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 10,65
2nd speed 1/min : 800
C-rod trav.mm : 10,95...11,15
3rd speed 1/min : 600
C-rod trav.mm : 11,20...11,30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700
Del.quantity cm³/ : 81,5...84,5
1000H.: (79,0...87,0)
Speed 1/min : 600
Del.quantity cm³/ : 81,0...84,0
1000H.: (79,0...86,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CAS 8,3 A2

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 083

Injection pump

Pump designation : PES6A100D420LS3024

Governor

Governor design. : RSV375...1100A2B798-
1R

Customer-spec. information

Customer : CASE

Engine : A-504 BDT

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 9 681 273 009

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 706

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,00...2,10
: (1,95...2,15)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,9

Del.quantity cm3/ : 12,5...12,7

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 375

Contr.-rod trav. m: 6,0

Del.quantity cm3/ : 1,8...2,2

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav.mmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 125,0...127,0

1000H.: (123,0...129,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 46...54

Testing:

1st c-rod trav.mm : 9,9

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4,0

Speed 1/min : 1200...1230

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5,4...5,6

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 375
C-rod trav.nm : 5,9...6,1
C-rod trav.mm : 2,0
Speed 1/min : 490...550

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 10,90
2nd speed 1/min : 750
C-rod trav.mm : 11,70...11,90

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ : 133,0...136,0
1000H.: (130,0...138,0)

Remarks:

G03

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 HS

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 085

Injection pump

Pump designation : PES6A100D410RS2676-1

Governor

Governor design. : RSV450...1100A2C2204
L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466T

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,45...2,55
: (2,40...2,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 9,8

Del.quantity cm³/ : 10,3...10,5

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 450

Contr.-rod trav. m: 5,1

Del.quantity cm³/ : 1,3...1,7

Dispersion cm³/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm³/ : 103,0...105,0
1000H.: (101,0...107,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 45...53

Testing:

1st c-rod trav.mm : 8,8
Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0
Speed 1/min : 1210...1240

4th speed 1/min : 1300
C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever
position degrees: 22...30

Setting point w/out aux. spring
Speed 1/min : 450

Contr.-rod trav.mm: 4,5...4,7

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 450
C-rod trav.mm : 5,0...5,2
C-rod trav.mm : 2,0
Speed 1/min : 600...660

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 9,8
2nd speed 1/min : 650
C-rod trav.mm : 10,4...10,6

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 650
Del.quantity cm³/ 1000H.: 108,0...111,0
1000H.: (105,5...113,5)

Remarks:

BOSCH INJ. PUM TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IEC 9,2 31

Edition : 7,86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 086

Injection pump

Pump designation : PES8A95D320RS2708

Governor

Governor design. : RQV325...1400AB1213R

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 019

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 702

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 3,3...3,4
: (3,25...3,45)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315
Tolerance + - ° : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,0...11,1

Del. quantity cm³/ : 6,4...6,6

Dispersion cm³/ : 0,35

100H.: (0,60)

2nd speed 1/min: 350

Contr.-rod trav. m: 6,7...6,9

Del. quantity cm³/ : 0,9...1,3

Dispersion cm³/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1450

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del. quantity cm³/ : 64,0...66,0

1000H.: (62,0...68,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 63,5...68,5

Testing:

1st c-rod trav.mm : 10,0

Speed 1/min : 1450...1460

2nd c-rod trav.mm : 4,0

Speed 1/min : 1550...1580

4th speed 1/min : 1650

C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 7...15

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 6,7...6,9

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

C-rod trav.mm : 2,0

Speed 1/min : 630...690

TORQUE CONTROL

Dimension a mm : 0,40

Torque-control curve - 1st version

1st speed 1/min : 1400

C-rod trav.mm : 11,4

2nd speed 1/min : 1200

C-rod trav.mm : 11,5...11,7

3rd speed 1/min : 840

C-rod trav.mm : 11,8...11,9

SWITCH-OVER POINT

Speed 1/min : 180...250

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 840

Del.quantity cm³/ 1000H.: 55,0...58,0
(52,5...60,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,0 D

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 087

Injection pump

Pump designation : PES8A95D320RS2708

Governor

Governor design. : RQV325...1400AB1213-1R

Customer-spec. information

Customer : IHC

Engine : D9L

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 019

Inlet press., bar : 2.8

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 702

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,30...3,40
: (3,25...3,45)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-8-7-3-6-5-4-2

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315
Tolerance + - ° : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,4...11,5

Del. quantity cm3/ : 7,3...7,5

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 350

Contr.-rod trav. m: 6,7...6,9

Del. quantity cm3/ : 0,9...1,3

Dispersion cm3/ : 0,35

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: MAX

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del. quantity cm3/ : 73,0...75,0

1000H.: (71,0...77,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 61,5...66,5

Testing:

1st c-rod trav.mm : 10,4

Speed 1/min : 1450...1460

2nd c-rod trav.mm : 4,0

Speed 1/min : 1555...1585

4th speed 1/min : 1650

C-rod trav.mm : 0,0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 8...16

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 6,7...6,9

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8,0

C-rod trav.mm : 2,0

Speed 1/min : 630...690

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1400

C-rod trav.mm : 11,75

2nd speed 1/min : 1200

C-rod trav.mm : 11,90...12,10

3rd speed 1/min : 845

C-rod trav.mm : 12,15...12,35

SWITCH-OVER POINT

Speed 1/min : 150...190

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 840

Del.quantity cm³/ : 62,5...65,5

1000H.: (60,0...68,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : CUM 8,3 B

Edition : 9.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 230 103

Injection pump

Pump designation : PES6A100D320/3RS2691

-2

EP type number : 9 410 230 028

Governor

Governor design. : RQV350...1100AB1227R

Governer no. : 9 420 231 015

Customer-spec. information

Customer : CUMMINS

Engine : 6 CT 8,3

1st version kW : 156,6

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 047

Inlet press., bar : 1,4

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2,80...2,90
: (2,75...2,95)
Contr.-rod trav.mm: 9,0...12,0
Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - " : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 12,8...12,9

Del.quantity cm3/ : 13,1...13,2

100H.: (12,9...13,5)

Dispersion cm3/ : 0,35

100H.: (0,60)

2nd speed 1/min: 350

Contr.-rod trav. m: 5,6...5,8

Del.quantity cm3/ : 1,8...2,2

100H.: (1,6...2,5)

Dispersion cm3/ : 0,35

100H.: (0,55)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

Sleeve travel mm: 1,5...1,9

2nd speed 1/min: 500

Sleeve travel mm: 3,3...3,6

3rd speed 1/min: 800

Sleeve travel mm: 5,0...5,3

4th speed 1/min: 1160

Sleeve travel mm: 8,1...8,2

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 670

Del.quantity cm3/ : 130,5...132,5

1000H.: (128,5...134,5)

Dispersion cm3/ : 3,5

1000H.: (6,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 58,5...63,5

Testing:

1st c-rod trav.mm : 11,8
Speed 1/min : 1150...1160
2nd c-rod trav.mm : 4,0
Speed 1/min : 1275...1305
4th speed 1/min : 1350
C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
position degrees: 9...17
Speed 1/min : 350
C-rod trav.mm : 5,6...5,8
C-rod trav.mm : 2,0
Speed 1/min : 485...545

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 670
Contr.-rod trav.mm: 12,8...12,9

Measurement

Speed 1/min : 500
C-rod trav.mm : 10,15...10,35
2nd pressure hPa : 535
C-rod trav.mm : 12,1...12,2
3rd pressure hPa : 387
C-rod trav.mm : 10,65...11,05

SWITCH-OVER POINT

Speed 1/min : 230...290

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 670
Speed 1/min : 750
Del.quantity cm³/ 1000H.: 128,5...132,5
1000H.: (126,0...134,0)
Dispersion cm³/ 1000H.: -
Speed 1/min : 500
Del.quantity cm³/ 1000H.: 79,0...83,0
1000H.: (77,0...85,0)
Dispersion cm³/ 1000H.: -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 A4

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 231 042

Injection pump

Pump designation : PES6P110A720RS361

Governor

Governor design. : RSV450...1100P2/467

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 AT

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 1 680 750 015

Outside diameter

x Wall thickness

x Length mm : 6,00x1,50x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 10,9

Del.quantity cm3/ : 13,7...13,9

Dispersion cm3/ : 0,40

100H.: (0,70)

2nd speed 1/min: 450

Contr.-rod trav. m: 5,5

Del.quantity cm3/ : 0,9...1,5

Dispersion cm3/ : 0,60

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 670

Del.quantity cm3/ : 137,0...139,0

1000H.: (134,0...142,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 42...50

Testing:

1st c-rod trav.mm : 9,9

Speed 1/min : 1095...1105

2nd c-rod trav.mm : 4,0

Speed 1/min : 1200...1230

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 18...26

Setting point w/out aux. spring

Speed 1/min : 450

Contr.-rod trav.mm: 5,0

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 450

C-rod trav.mm : 5,5

C-rod trav.mm : 2,0

Speed 1/min : 635...695

Speed 1/min : 850
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 10,85...10,95
2nd speed 1/min : 900
C-rod trav.mm : 11,10...11,20
3rd speed 1/min : 850
C-rod trav.mm : 10,85...11,15
4th speed 1/min : 650
C-rod trav.mm : 11,55...11,65
5th speed 1/min : 550
C-rod trav.mm : 8,85...8,95

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 410
Contr.-rod trav.mm: 10,85...10,95

Measurement

Speed 1/min : 500

1st pressure hPa : 180
C-rod trav.mm : 9,40...9,80

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 670
Speed 1/min : 650
Del.quantity cm³/ : 150,0...153,0
1000H.: (147,0...157,0)
Speed 1/min : 550
Del.quantity cm³/ : 86,0...94,0
1000H.: (85,0...95,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 G2

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 231 084

Injection pump

Pump designation : PES6P110A720RS3083-1

Governor

Governor design. : RSV425...1100P2/489

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve : 1 456 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 271 022

Outside diameter

x Wall thickness

x Length mm : 6,00x1,50x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 12,0

Del.quantity cm3/ : 37,8...40,0

Dispersion cm3/ : 0,40

2nd speed 1/min: 425

Contr.-rod trav. m: 6,5

Del.quantity cm3/ : 1,1...1,6

Dispersion cm3/ : 0,45

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 1200

Del.quantity cm3/ : 137,5...139,5

1000H.: (134,5...142,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 46...54

Testing:

1st c-rod trav.mm : 11,0

Speed 1/min : 1155...1165

2nd c-rod trav.mm : 4,0

Speed 1/min : 1230...1260

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,4

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 5,9...6,1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 425

C-rod trav.mm : 6,4...6,6

C-rod trav.mm : 2,0
Speed 1/min : 655...715

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 12,0
2nd speed 1/min : 700
C-rod trav.mm : 13,10...13,30

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 370
Contr.-rod trav.mm: 11,25...11,35

Measurement

Speed 1/min : 500

1st pressure hPa : 200
C-rod trav.mm : 10,10...10,50

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200
Speed 1/min : 700
Del.quantity cm³/ 1000H.: 155,5...159,5
Speed 1/min : 500
Del.quantity cm³/ 1000H.: 105,0...109,0

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 G3

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 231 084

Injection pump

Pump designation : PES6P110A720RS3083-1

Governor

Governor design. : RSV425...1100P2A489

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 456 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 271 022

Outside diameter

x Wall thickness

x Length mm : 6,00X2,00X600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.

per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55

: (3,40...3,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 12,0

Del.quantity cm3/ : 13,8...14,0

Dispersion cm3/ : 0,40

2nd speed 1/min: 425

Contr.-rod trav. m: 6,5

Del.quantity cm3/ : 1,1...1,6

Dispersion cm3/ : 0,45

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 137,5...139,5
1000H.: (134,5...142,5)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 46...54

Testing:

1st c-rod trav.mm : 11,0

Speed 1/min : 1155...1165

2nd c-rod trav.mm : 4,0

Speed 1/min : 1230...1260

4th speed 1/min : 1350

C-rod trav.mm : 0,3...1,4

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 5,9...6,1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 425

C-rod trav.mm : 6,4...6,6

C-rod trav.mm : 2,0

Speed 1/min : 655...715

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 12,0...12,1

2nd speed 1/min : 700

C-rod trav.mm : 13,10...13,30

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 370

Contr.-rod trav.mm: 12,45...12,55

Measurement

Speed 1/min : 500

1st pressure hPa : 200

C-rod trav.mm : 11,4...11,8

C-rod trav.mm : 10,9...11,1

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200

Speed 1/min : 700

Del.quantity cm³/ : 155,5...159,5

1000H.: (152,5...162,5)

Speed 1/min : 500

Del.quantity cm³/ : 105,0...109,0

1000H.: (102,0...112,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 10,1 B1

Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 231 098

Injection pump

Pump designation : PES6P110A720RS3086

Governor

Governor design. : RSV400...1050PO/492

Customer-spec. information

Customer : JOHN DEERE

Engine : 6619 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00X1,50X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 13,9

Del.quantity cm3/ : 21,3...21,5

Dispersion cm3/ : 0,40

2nd speed 1/min: 400

Contr.-rod trav. m: 6,1

Del.quantity cm3/ : 1,9...2,5

Dispersion cm3/ : 0,40

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 100

Del.quantity cm3/ : 213,5...215,5

1000H.: (210,5...218,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 38...46

Testing:

1st c-rod trav.mm : 12,9

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1185...1215

4th speed 1/min : 0,3...1,7

C-rod trav.mm : 1280

LOWEST RATED SPEED I

Control-lever

position degrees: 17...25

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 5,5...5,7

Speed 1/min : 400

C-rod trav.mm : 6,0...6,2

C-rod trav.mm : 2,0

Speed 1/min : 540...600

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 13,9
2nd speed 1/min : 700
C-rod trav.mm : 14,35...14,65

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 48
Contr.-rod trav.mm: 13,65...13,75

Measurement

Speed 1/min : 500

1st pressure hPa : 27
C-rod trav.mm : 12,10...12,50

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 100
Speed 1/min : 700
Del.quantity cm³/ : 223,5...226,5
1000H.: (220,0...230,0)
Speed 1/min : 500
Del.quantity cm³/ : 142,5...145,5
1000H.: (139,0...149,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 15,6 B1

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 231 102

Injection pump

Pump designation : PES8P110A120RS3089

Governor

Governor design. : RSV425...1050P2/494

Customer-spec. information

Customer : JOHN DEERE

Engine : 8955 A

1st version kW : 270

Speed 1/min: 2100

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder

assembly : 0 681 343 009

Opening

pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter

x Wall thickness

x Length mm : 6,00x1,50x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-6-3-4-2-7-8

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315

Tolerance + - ° : 0,5 (0,75)

SD mark cyl. no. : 8

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 11,3

Del.quantity cm3/ : 16,8...17,0

Dispersion cm3/ : 0,40

2nd speed 1/min: 425

Contr.-rod trav. m: 4,5

Del.quantity cm3/ : 1,2...1,7

Dispersion cm3/ : 0,45

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 670

Del.quantity cm3/ : 168,0...170,0

1000H.: (166,0...172,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 44...52

Testing:

1st c-rod trav.mm : 10,3

Speed 1/min : 1095...1105

2nd c-rod trav.mm : 4,0

Speed 1/min : 1170...1200

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 3,9...4,1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
Speed 1/min : 400
C-rod trav.mm : 4,4...4,6
C-rod trav.mm : 2,0
Speed 1/min : 580...640

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 11,30
2nd speed 1/min : 750
C-rod trav.mm : 12,15...12,45

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 550
Pressure hPa : 380
Contr.-rod trav.mm: 11,50...11,60

Measurement

Speed 1/min : 550

1st pressure hPa : 240
C-rod trav.mm : 10,70...11,10

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 670
Speed 1/min : 750
Del.quantity cm³/ : 181,5...184,5
1000H.: (178,5...187,5)
Speed 1/min : 550
Del.quantity cm³/ : 125,0...129,0
1000H.: (123,0...132,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : IHC 9,4 A2

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 231 114

Injection pump

Pump designation : PES8P100A921/5RS286

Governor

Governor design. : RQV350...1200PA643K

Customer-spec. information

Customer : IHC

Engine : DVT 800

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 040

Inlet press., bar : 2.8

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 9 681 230 713

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x1000

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,7...2,8

Cam sequence : 1-8-4-2-7-3-6-5

SD ang. spacing°CS: 0-45-90-135-180-225-

Tolerance + - ° : 0,5(0,75)

BASIC SETTING

1st speed 1/min: 1200

Contr.-rod trav.mm: 11,0

Del.quantity cm³/ : 12,5...12,7

Dispersion cm³/ : 0,40

100H.: (0,60)

2nd speed 1/min: 350

Contr.-rod trav. m: 5,0

Del.quantity cm³/ : 1,8...2,2

Dispersion cm³/ : 0,50

100H.: (0,55)

SLEEVE POSITION

Control-lever position

Degree: MAX

Speed 1/min: 1200

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Charge press. hPa : 930

Del.quantity cm³/ : 125,0...127,0

1000H.: (123,0...129,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 61,5...66,5

Testing:

1st c-rod trav.mm : 10,0

Speed 1/min : 1240...1250

2nd c-rod trav.mm : 4,0

Speed 1/min : 1315...1345

4th speed 1/min : 1390

C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
position degrees: 9,5...14,5

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 4,9...5,1

Testing:

Speed 1/min : 350

C-rod trav.mm min : 5,0

Speed 1/min : 285

C-rod trav.mm : 5,8...7,2

C-rod trav.mm : 2,0
Speed 1/min : 640...700

TORQUE CONTROL

Dimension a mm : 0,05
Torque-control curve - 1st version
1st speed 1/min : 1200
C-rod trav.mm : 11,0
2nd speed 1/min : 900
C-rod trav.mm : 10,95...11,05

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 800
Pressure hPa : 160
Contr.-rod trav.mm: *

SWITCH-OVER POINT

Speed 1/min : 220...280

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 930
Speed 1/min : 900
Del.quantity cm³/ : 120,0...126,0
1000H.: (119,0...127,0)
Speed 1/min : 800
Del.quantity cm³/ : 86,5...94,5

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 15,6 C

Edition : 7.86

Superceeded

Calibrating oil : ISO-4113

Combination no. : 9 400 231 160

Injection pump

Pump designation : PES8P120A320/3RS6014

Governor

Governor design. : RSV400...1050P0/502

Customer-spec. information

Customer : JOHN DEERE

Engine : 8955 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 1 688 901 017

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,6

Test inj. tubing : 1 680 750 067

Outside diameter
x Wall thickness
x Length mm : 6,00X1,50X1000

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-6-3-4-2-7-8

SD ang. spacing°CS: 0-45-90-135-180-225-

270-315

Tolerance + - ° : 0,5(0,75)

SD mark cyl. no. : 8

BASIC SETTING

1st speed 1/min: 1050

Contr.-rod trav.mm: 12,6

Del.quantity cm³/ : 24,5...24,7

Dispersion cm³/ : 0,50

100H.: (0,90)

2nd speed 1/min: 400

Contr.-rod trav. m: 4,5

Del.quantity cm³/ : 1,8...2,4

Dispersion cm³/ : 0,80

100H.: (1,20)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav. m/mm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 1070

Del.quantity cm³/ : 245,0...247,0

1000H.: (242,0...250,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 41...49

Testing:

1st c-rod trav.mm : 11,6

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4,0

Speed 1/min : 1160...1190

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 19...27

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 3,9...4,1

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 400
C-rod trav.mm : 4,4...4,6
C-rod trav.mm : 2,0
Speed 1/min : 480...540

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 550
Pressure hPa : 710
Contr.-rod trav.mm: 12,35...12,45

Measurement

Speed 1/min : 550
C-rod trav.mm : 11,20
2nd pressure hPa : 530
C-rod trav.mm : 11,40...11,800

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1070
Speed 1/min : 750
Speed 1/min : 550
Del.quantity cm³/ 1000H.: 182,0...188,0
1000H.: (179,0...191,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 15,6 B
Edition : 7.86
Superceded : -

Combination no. : 9 400 231 189

Injection pump
Pump designation : PES8P110A120RS3089
Governor
Governor design. : RSV425...1050P2/494-
Governor design. : 2

Customer-spec. information
Customer : JOHN DEERE

Engine : 8955 A

1st version kW : 270
Speed 1/min: 2100

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,60)
Contr.-rod trav.mm: 10,5
Cam sequence : 1-5-6-3-4-2-7-8

SD ang. spacing°CS: 0-45-90-135-180-225-
270-315
Tolerance + - ° : 0,5(0,75)

SD mark cyl. no. : 8

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 11,3

Del.quantity cm3/ : 16,8...17,0

Dispersion cm3/ : 0,40

100H.: (0,75)

2nd speed 1/min: 425

Contr.-rod trav. m: 4,5

Del.quantity cm3/ : 1,2...1,7

Dispersion cm3/ : 0,45

100H.: (0,75)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 670

Del.quantity cm3/ : 168,0...170,0

1000H.: (165,0...173,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 44...52

Testing:

1st c-rod trav.mm : 10,3

Speed 1/min : 1095...1105

2nd c-rod trav.mm : 4,0

Speed 1/min : 1185...1195

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 23...31

Setting point w/out aux. spring

Speed 1/min : 425

Contr.-rod trav.mm: 3,9...4,1
Speed 1/min : 425
C-rod trav.mm : 4,4...4,6
C-rod trav.mm : 2,0
Speed 1/min : 550...610

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1050
C-rod trav.mm : 11,3
2nd speed 1/min : 700
C-rod trav.mm : 12,85...13,05

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 550
Pressure hPa : 480
Contr.-rod trav.mm: 12,40...12,50

Measurement

Speed 1/min : 550
1st pressure hPa : 140
C-rod trav.mm : 10,15...10,55
C-rod trav.mm : 9,3

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 670
Speed 1/min : 700
Del.quantity cm³/ 1000H.: 195,0...199,0
1000H.: (192,0...202,0)
Speed 1/min : 550
Del.quantity cm³/ 1000H.: 125,0...129,0
1000H.: (122,0...132,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 G6

Edition : 7,86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 400 231 195

Injection pump

Pump designation : PES6P110A720RS3083-1

Governor

Governor design. : RSV400...900P7A455-2

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 AF

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300

Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 800

Contr.-rod trav.mm: 12,9

Del.quantity cm3/ : 17,9...18,2

Dispersion cm3/ : 0,40

100H.: (0,75)

2nd speed 1/min: 400

Contr.-rod trav. m: 5,5

Del.quantity cm3/ : 0,8...1,3

Dispersion cm3/ : 0,45

100H.: (0,75)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 800

Del.quantity cm3/ : 178,5...181,5

1000H.: (176,0...184,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 53...61

Testing:

1st c-rod trav.mm : 11,9

Speed 1/min : 915...925

2nd c-rod trav.mm : 4,0

Speed 1/min : 965...995

4th speed 1/min : 1050

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 24...32

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 4,9...5,1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 400
C-rod trav.mm : 5,4...5,6
C-rod trav.mm : 2,0
Speed 1/min : 500...560

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 G4
Edition : 7,86
Superceded : -

Combination no. : 9 400 231 196

Injection pump
Pump designation : PES6P110A720RS3038
Governor
Governor design. : RSV400...1050P2A488-
Governor design. : 3

Customer-spec. information
Customer : JOHN DEERE

Engine : 6466 AF

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 705

Outside diameter
x Wall thickness
x Length mm : 6,00X1,50X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,4...3,6)
Contr.-rod trav.mm: 10,5
Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 12,4

Del.quantity cm3/ : 14,7...15,0

Dispersion cm3/ : 0,40

100H.: (0,75)

2nd speed 1/min: 400

Contr.-rod trav. m: 6,7

Del.quantity cm3/ : 1,4...1,9

Dispersion cm3/ : 0,45

100H.: (0,75)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 1200

Del.quantity cm3/ : 146,0...149,0

1000H.: (144,0...152,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 41...49

Testing:

1st c-rod trav.mm : 11,4

Speed 1/min : 1095...1105

2nd c-rod trav.mm : 4,0

Speed 1/min : 1185...1215

4th speed 1/min : 1300

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 19...27

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 6,1...6,3

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0
Speed 1/min : 400
C-rod trav.mm : 6,6...6,8
C-rod trav.mm : 2,0
Speed 1/min : 660...720

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 12,40
2nd speed 1/min : 700
C-rod trav.mm : 13,55...13,85

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 670
Contr.-rod trav.mm: 12,85...12,95

Measurement

Speed 1/min : 500
C-rod trav.mm : 10,44
2nd pressure hPa : 310
C-rod trav.mm : 11,20...11,60

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200
Speed 1/min : 700
Del.quantity cm³/ 179,0...183,0
1000H.: (176,0...186,0)
Speed 1/min : 500
Del.quantity cm³/ 91,0...95,0
1000H.: (88,0...98,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 7,6 GS

Edition : 7,86

Superceeded

Calibrating oil : ISO-4113

Combination no. : 9 400 231 197

Injection pump

Pump designation : PES6P110A720RS3083-1

Governor

Governor design. : RSV600...1100P2/489-1

Customer-spec. information

Customer : JOHN DEERE

Engine : 6466 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 705

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 12,4

Del.quantity cm³/ : 14,6...14,9Dispersion cm³/ : 0,40

100H.: (0,75)

2nd speed 1/min: 600

Contr.-rod trav. m: 6,3

Del.quantity cm³/ : 2,3...2,8Dispersion cm³/ : 0,50

100H.: (0,75)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 1200

Del.quantity cm³/ : 146,0...149,0

1000H.: (143,5...151,5)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 47...55

Testing:

1st c-rod trav.mm : 11,4

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,0

Speed 1/min : 1245...1275

4th speed 1/min : 1350

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever
position degrees: 27...35

Setting point w/out aux. spring

Speed 1/min : 600

Contr.-rod trav.mm: 5,7...5,9

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 600
C-rod trav.mm : 6,2...6,4
C-rod trav.mm : 2,0
Speed 1/min : 790...850

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 12,4
2nd speed 1/min : 950
C-rod trav.mm : 12,85...13,05
3rd speed 1/min : 850
C-rod trav.mm : 13,15...13,35

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 570
Contr.-rod trav.mm: 12,25...12,35

Measurement

Speed 1/min : 500

1st pressure hPa : 240
C-rod trav.mm : 9,70...10,10

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200
Speed 1/min : 850
Del.quantity cm³/ 1000H.: 162,0...166,0
1000H.: (159,0...169,0)

;

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 10,1 02
Edition : 7.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 9 400 231 204

Injection pump

Pump designation : PES6P110A720RS3144

Governor

Governor design. : RSV400...1050POA492-
2

Customer-spec. information

Customer : JOHN DEERE

Engine : 6619 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 271 004

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,50)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 13,6...13,7

Del.quantity cm3/ : 21,7...22,0

Dispersion cm3/ : 0,40

100H.: (0,75)

2nd speed 1/min: 400

Contr.-rod trav. m: 5,8...6,0

Del.quantity cm3/ : 2,0...2,5

Dispersion cm3/ : 0,45

100H.: (0,75)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 1200

Del.quantity cm3/ : 216,5...219,5

1000H.: (214,0...222,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 41...49

Testing:

1st c-rod trav.mm : 12,6

Speed 1/min : 1100...1110

2nd c-rod trav.mm : 4,0

Speed 1/min : 1170...1200

4th speed 1/min : 1280

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 19...27

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 5,3...5,5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 400
C-rod trav.mm : 5,8...6,0
C-rod trav.mm : 2,0
Speed 1/min : 535...595

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 13,5...13,7
2nd speed 1/min : 750
C-rod trav.mm : 14,4...14,6

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200
Speed 1/min : 750
Del.quantity cm³/ : 229,0...233,0
1000H.: (226,0...236,0)
Speed 1/min : 500
1000H.: (155,0...165,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 10,1 C1

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 231 204

Injection pump

Pump designation : PES6P110A720RS3144

Governor

Governor design. : RSV400...1050PO/492-
2

Customer-spec. information

Customer : JOHN DEERE

Engine : 6619 A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 457 413 010

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 681 230 705

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 3,45...3,55

: (3,4...3,5)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 13,6

Del. quantity cm³/ : 21,7...22,0

Dispersion cm³/ : 0,40

100H.: (0,75)

2nd speed 1/min: 400

Contr.-rod trav. m: 5,8

Del. quantity cm³/ : 2,0...2,5

Dispersion cm³/ : 0,45

100H.: (0,75)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod trav.mmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 1200

Del. quantity cm³/ : 216,5...219,5

1000H.: (214,0...222,0)

Dispersion cm³/ : 4,0

1000H.: (7,5)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 41...49

Testing:

1st c-rod trav.mm : 12,6

Speed 1/min : 1100...1110

2nd c-rod trav.mm : 4,0

Speed 1/min : 1170...1200

4th speed 1/min : 1280

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 19...27

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 5,2...5,4

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19,0
Speed 1/min : 400
C-rod trav.mm : 5,7...5,9
C-rod trav.mm : 2,0
Speed 1/min : 535...595

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050
C-rod trav.mm : 13,60
2nd speed 1/min : 750
C-rod trav.mm : 14,30...14,40

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 720
Contr.-rod trav.mm: 13,95...14,05

Measurement

Speed 1/min : 500
C-rod trav.mm : 11,30
2nd pressure hPa : 240
C-rod trav.mm : 12,00...12,40

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200
Speed 1/min : 750
Del.quantity cm³/ : 229,0...233,0
1000H.: (226,0...236,0)
Speed 1/min : 500
Del.quantity cm³/ : 158,0...162,0
1000H.: (155,0...165,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 10,1 C

Edition : 7.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 9 400 231 215

Injection pump

Pump designation : PES6P110A720RS3144

Governor

Governor design. : RSV400...1050POA513

Customer-spec. information

Customer : JOHN DEERE

Engine : 6619 A

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 457 413 010

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3,45...3,55
: (3,40...3,60)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1050

Contr.-rod trav.mm: 12,9...13,0

Del.quantity cm³/ : 21,7...22,0

Dispersion cm³/ : 0,40

2nd speed 1/min: 400

Contr.-rod trav. m: 5,1...5,3

Del.quantity cm³/ : 2,0...2,5

Dispersion cm³/ : 0,45

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Charge press. hPa : 1200

Del.quantity cm³/ : 216,5...219,5

1000H.: (214,0...222,0)

Dispersion cm³/ : 4,0

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 41...49

Testing:

1st c-rod trav.mm : 11,9

Speed 1/min : 1100...1110

2nd c-rod trav.mm : 4,0

Speed 1/min : 1160...1190

4th speed 1/min : 1280

C-rod trav.mm : 0,3...1,4

LOWEST RATED SPEED

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 4,6...4,8

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 400

C-rod trav.mm : 5,1...5,3
C-rod trav.mm : 2,0
Speed 1/min : 505...565

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1050
C-rod trav.mm : 12,9...13,0
2nd speed 1/min : 750
C-rod trav.mm : 13,8...14,0

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 720
Contr.-rod trav.mm: 13,15...13,25

Measurement

Speed 1/min : 500

1st pressure hPa : 240
C-rod trav.mm : 11,3...11,7
C-rod trav.mm : 10,7...10,9

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 1200
Speed 1/min : 750
Del.quantity cm³/ 1000H.: 229,0...233,0
Del.quantity cm³/ 1000H.: (226,0...236,0)
Speed 1/min : 500
Del.quantity cm³/ 1000H.: -
Del.quantity cm³/ 1000H.: -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5,7 V 17

Edition : 19.12.86

Superceeded : 1.84

Calibrating oil : ISO-4113

Combination no. : 9 407 083 267

Injection pump

Pump designation : PES6A90D410RS2596

Governor

Governor design. : RQV300...1400AB1145L

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM 352A

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 40...45

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2.00...2.10
: (1.95...2.15)

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.5 (0.75)

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 12.15...12.25

Del.quantity cm3/ : 7.0...7.1

100H.: (-)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 300

Contr.-rod trav. m: 9.4...9.6

Del.quantity cm3/ : 1.2...1.6

100H.: (-)

Dispersion cm3/ : 0.25

100H.: (0.45)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 400

Sleeve travel mm: 1.60...1.80

2nd speed 1/min: 800

Sleeve travel mm: 4.35...4.50

3rd speed 1/min: 1400

Sleeve travel mm: 7.65...7.75

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 1500

Cont.-rod travemm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

Charge press. hPa : 1400

Del.quantity cm3/ : 70.0...71.0

1000H.: (68.0...73.0)

Dispersion cm3/ : 3.0

1000H.: (5.0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 61...69

Testing:

1st c-rod trav.mm : 11.15

Speed 1/min : 1440...1450

2nd c-rod trav.mm : 4.00

Speed 1/min : 1570...1600

4th speed 1/min : 1750

C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28

Testing:

Speed 1/min : 100
C-rod trav.mm min : 11.00
Speed 1/min : 300
C-rod trav.mm : 9.40...9.60
C-rod trav.mm : 2.00
Speed 1/min : 570...630

SWITCH-OVER POINT

Speed 1/min : 220(240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 51.7...53.7
1000H.: (49.2...56.2)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5,7 N 13

Edition : 19.09.86

Superceded : 01.86

Calibrating oil : ISO-4113

Combination no. : 9 407 083 270

Injection pump

Pump designation : PES6A90D410RS2293

EP type number : 0 410 896 031

Governor

Governor design. : RQV300...1400AB740-1

L

Governer no. : 9 420 080 153

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM 352 A

1st version kW : 118

Speed 1/min: 2800

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 047

Inlet press., bar : 1.0

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2,25...2,25
: (2,10...2,30)Contr.-rod trav.mm: 9,0...12,0
Cam sequence : 1-5-3-6-2-4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,0...11,1

Del.quantity cm3/ : 7,1...7,2

100H.: (6,9...7,4)

Dispersion cm3/ : 0,3

100H.: (0,5)

2nd speed 1/min: 300

Contr.-rod trav. m: 7,4...7,6

Del.quantity cm3/ : 1,0...1,6

100H.: (0,9...1,7)

Dispersion cm3/ : 0,25

100H.: (0,45)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300

Sleeve travel mm: 0,7...1,2

2nd speed 1/min: 550

Sleeve travel mm: 2,7...3,0

3rd speed 1/min: 775

Sleeve travel mm: 4,1...4,6

4th speed 1/min: 950

Sleeve travel mm: 5,2...5,5

5th speed 1/min: 1460

Sleeve travel mm: 8,4...8,6

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1420

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm3/ : 71,0...72,0

1000H.: (69,0...74,0)

Dispersion cm3/ : 3,0

1000H.: (5,0)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 54...62

Testing:

1st c-rod trav.mm : 10,0
Speed 1/min : 1440...1450
2nd c-rod trav.mm : 4,0
Speed 1/min : 1565...1595
4th speed 1/min : 1700
C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever
position degrees: 10...18

Testing:

Speed 1/min : 100
C-rod trav.mm min : 9,0
Speed 1/min : 300
C-rod trav.mm : 7,4...7,6

CONSTANT REGULATION

Speed 1/min : 320...550

SWITCH-OVER POINT

Speed 1/min : 220(240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 53,0...56,0
1000H.: (51,0...58,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FOR 4,4 B

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 407 083 272

Injection pump

Pump designation : PES4A90D410RS2632

Governor

Governor design. : RS350/1400A2B2149L

Customer-spec. information

Customer : FORD

Engine : FT0329

TEST BENCH REQUIREMENTS

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.0

Calibrating nozzle-holder
assembly : 0 681 443 009

Opening
pressure, bar : 172

Test inj. tubing : 9 681 081 733

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2.15...2.25
: (2.10...2.30)

Cam sequence : 1-3-4-2

SD ang. spacing[°]CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1400

Contr.-rod trav.mm: 10,1...10,2

Del.quantity cm³/ : 6,65...6,75

Dispersion cm³/ : 0,30

100H.: (0,45)

2nd speed 1/min: 350

Contr.-rod trav. m: 6,90...7,10

Del.quantity cm³/ : 0,85...1,25

SLEEVE POSITION

Control-lever position

Degree: -

Speed 1/min: 800

Cont.-rod travelmm: 0,3-1,0

Governor-spring reload

Notch setting x : 5,75

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm³/ : 66,5...67,5

1000H.: (64,5...69,5)

Dispersion cm³/ : 3,00

1000H.: (4,50)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 58...64

Testing:

1st c-rod trav.mm : 9,10

Speed 1/min : 1440...1450

2nd c-rod trav.mm : 4,0

Speed 1/min : 1510...1540

4th speed 1/min : 1650

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 29...37

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 7,0

Speed 1/min : 300

C-rod trav.mm : 7,9...8,4

Speed 1/min : 400

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1400

C-rod trav.mm : 10,1...10,2

2nd speed 1/min : 1000
C-rod trav.mm : 10,1...10,4
3rd speed 1/min : 800
C-rod trav.mm : 10,25...10,45
4th speed 1/min : 500
C-rod trav.mm : 10,4...10,5

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 1000
Del.quantity cm³/ : 63,0...65,0
1000H.: (60,5...67,5)
Speed 1/min : 800
Del.quantity cm³/ : 58,5...60,5
1000H.: (56,0...63,0)
Speed 1/min : 500
Del.quantity cm³/ : 53,0...55,0
1000H.: (50,5...57,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5,7 U9

Edition : 7.86

Superceeded

Calibrating oil : ISO-4113

Combination no. : 9 407 083 275

Injection pump

Pump designation : PES6A90D410RS2569-1

Governor

Governor design. : RQV300...1400AB1160L

Customer-spec. information

Customer : MERCEDES-BENZ

Engine : OM 352

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00X2,00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2,0...2,1
: (1,95...2,15)

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11,5...11,6

Del. quantity cm³/ : 6,1...6,2

Dispersion cm³/ : 0,30

100H.: (0,45)

2nd speed 1/min: 300

Contr.-rod trav. m: 9,4...9,6

Del. quantity cm³/ : 1,0...1,4

Dispersion cm³/ : 0,25

100H.: (0,45)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 400

Sleeve travel mm: 1,60...1,80

2nd speed 1/min: 800

Sleeve travel mm: 4,35...4,50

3rd speed 1/min: 1400

Sleeve travel mm: 7,65...7,75

SLEEVE POSITION

Control-lever position

Degree: MAX.

Speed 1/min: 1500

Cont.-rod travelmm: 15,2...17,8

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del. quantity cm³/ : 61,0...62,0

1000H.: (59,0...64,0)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 59...67

Testing:

1st c-rod trav.mm : 10,5

Speed 1/min : 1445

2nd c-rod trav.mm : 4,0

Speed 1/min : 1560...1590

4th speed 1/min : 1750

C-rod trav.mm : 0...1,0

LOWEST RATED SPEED I

Control-lever

position degrees: 24...32

Testing:

Speed 1/min : 100
C-rod trav.mm min : 11,0
Speed 1/min : 300
C-rod trav.mm : 9,4...9,6
C-rod trav.mm : 2,0
Speed 1/min : 570...630

TORQUE CONTROL

Dimension a mm : 0,5
Torque-control curve - 1st version
1st speed 1/min : 1400
C-rod trav.mm : 11,50...11,60
2nd speed 1/min : 1150
C-rod trav.mm : 11,65...11,95
3rd speed 1/min : 1050
C-rod trav.mm : 11,90...12,10
4th speed 1/min : 500
C-rod trav.mm : 12,00...12,10

SWITCH-OVER POINT

Speed 1/min : 100...220

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 1050
Del.quantity cm³/ : 61,5...63,5
1000H.: (59,0...66,0)
Speed 1/min : 500
Del.quantity cm³/ : 47,3...49,3
1000H.: (44,8...51,8)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MWM 3,9 B
Edition : 18.09.86
Superceded : 11.85
Calibrating oil : ISO-4113

Combination no. : 9 407 083 285

Injection pump
Pump designation : PES4A80D320RS1282
EP type number : 9 400 083 056
Governor
Governor design. : RS350/1500A2B2073-1R
Governor no. : 9 420 083 186

Customer-spec. information
Customer : MWM

Engine : D229-4

TEST BENCH REQUIREMENTS

Overflow valve : 1 417 413 012

Inlet press., bar : 1.0

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6,00x2,00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2,15...2,25
: (2,10...2,30)
Contr.-rod trav.mm: 9,0...12,0
Cam sequence : 1-3-4-2

SD ang. spacing[°]CS: 0-90-180-270
Tolerance + - : 0,5(0,75)

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9,0...12,0
& c-rod trav max. : 21,0
Difference[°] CS : 4...5

BASIC SETTING

1st speed 1/mi: 1480

Contr.-rod trav.mm: 9,2...9,3

Del.quantity cm³/ : 5,7...5,8

100H.: (5,5...5,9)

Dispersion cm³/ : 0,25

100H.: (0,4)

2nd speed 1/min: 350

Contr.-rod trav. m: 5,9...6,1

Del.quantity cm³/ : 0,55...0,85

100H.: (0,4...1,0)

Dispersion cm³/ : 0,2

100H.: (0,35)

SLEEVE POSITION

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1480

Del.quantity cm³/ : 56,5...57,5

1000H.: (55,0...59,0)

Dispersion cm³/ : 2,5

1000H.: (4,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 55...63

Testing:

1st c-rod trav.mm : 8,2

Speed 1/min : 1540...1550

2nd c-rod trav.mm : 4,0

Speed 1/min : 1570...1600

4th speed 1/min : 1700

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever
position degrees: 30...38

Setting point w/out aux. spring

Speed 1/min : 350
Contr.-rod trav.mm: 6,0
Speed 1/min : 350
C-rod trav.mm : 6,6...7,2
Speed 1/min : 1350
C-rod trav.mm max : 2,6

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1480
C-rod trav.mm : 9,2...9,3
2nd speed 1/min : 500
C-rod trav.mm : 10,7...10,8
3rd speed 1/min : 800
C-rod trav.mm : 10,3...10,6
4th speed 1/min : 1000
C-rod trav.mm : 10,0...10,2

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 56,5...58,5
1000H.: (54,5...60,5)
Dispersion cm³/ : -
1000H.: -
Speed 1/min : 1000
Del.quantity cm³/ : 59,5...61,5
1000H.: (57,5...63,5)
Dispersion cm³/ : -
1000H.: -

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MWM 5,9 AS

Edition : 7.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 9 407 083 297

Injection pump

Pump designation : PES6A80D320RS1271

Governor

Governor design. : RSV350...1500A2B2122
-1R

Customer-spec. information

Customer : MWM

Engine : D 229-6

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6,00x1,50x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 2,0...2,3
: (2,15...2,35)

Contr.-rod trav.mm: 10,5

Cam sequence : 1-5-3-6-2-4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0,5(0,75)

BASIC SETTING

1st speed 1/min: 1500

Contr.-rod trav.mm: 9,2...9,3

Del.quantity cm³/ : 5,2...5,3Dispersion cm³/ : 0,25

100H.: (0,40)

2nd speed 1/min: 350

Contr.-rod trav. m: 6,4...6,6

Del.quantity cm³/ : 0,75...1,05Dispersion cm³/ : 0,20

100H.: (0,35)

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,3...1,0

Governor-spring reload

Notch setting x : 6,0

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1500

Del.quantity cm³/ : 52,0...53,0

1000H.: (51,0...54,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 62...64

Testing:

1st c-rod trav.mm : 8,2

Speed 1/min : 1530...1540

2nd c-rod trav.mm : 4,0

Speed 1/min : 1600...1630

4th speed 1/min : 1780

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 24...26

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 5,9...6,1

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19,0

Speed 1/min : 350
C-rod trav.mm : 6,4...6,6
C-rod trav.mm : 2,0
Speed 1/min : 620...680
Speed 1/min : 800
C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1500
C-rod trav.mm : 9,2...9,3
2nd speed 1/min : 1000
C-rod trav.mm : 9,75...10,05
3rd speed 1/min : 800
C-rod trav.mm : 9,95...10,15
4th speed 1/min : 500
C-rod trav.mm : 10,2...10,3

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 1000
Del.quantity cm³/ : 52,5...54,5
1000H.: (50,5...56,5)
Speed 1/min : 800
Del.quantity cm³/ : 50,5...52,5
1000H.: (48,5...54,5)
Speed 1/min : 500
Del.quantity cm³/ : 46,5...48,5
1000H.: (44,5...50,5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : SOA 3,7 A 1

Edition : 14.11.86

Superceded : 4.85

Calibrating oil : ISO-4113

Combination no. : 0 400 463 104

Injection pump

Pump designation : PES3A80D410/3RS1183

EP type number : 0 410 483 011

Governor

Governor design. : RSV325...1075A8C492-
1L

Governor no. : 0 420 232 478

Customer-spec. information

Customer : SONACOME

Engine : F3L912

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6.00X2.00X600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00

: (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 2

SD ang. spacing°CS: 0-120-240
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1075

Contr.-rod trav.mm: 11.00...11.10

Del.quantity cm3/ : 5.0...5.1

100H.: (4.8...5.2)

Dispersion cm3/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 8.4...8.6

Del.quantity cm3/ : 1.0...1.6

100H.: (0.8...1.7)

Dispersion cm3/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 17min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 5.50

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1075

Del.quantity cm3/ : 50.0...51.0

1000H.: (48.5...52.5)

Dispersion cm3/ : 2.00

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 50...58

Testing:

1st c-rod trav.mm : 10.00

Speed 1/min : 1115...1125

2nd c-rod trav.mm : 4.00

Speed 1/min : 1155...1185

3rd c-rod trav.mm : 4.00

Speed 1/min : 1165...1195

4th speed 1/min : 1335

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 18...26
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 410...470

TORQUE CONTROL

Dimension a mm : 1.00
Torque-control curve - 1st version
1st speed 1/min : 1075
C-rod trav.mm : 11.00...11.10
2nd speed 1/min : 500
C-rod trav.mm : 12.00...12.10
3rd speed 1/min : 935
C-rod trav.mm : 11.40...11.60

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 22

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 463 151

Injection pump

Pump designation : PES3A80D410/3RS1324

EP type number : 0 410 483 017

Governor

Governor design. : RSV325...1075A8C494-
2L

Governor no. : 0 420 232 467

Customer-spec. information

Customer : KHD

Engine : F3L912

1st version kW : 30.0

Speed 1/min: 2150

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
: (1.85...2.05)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 3- 2SD ang. spacing°CS: 0-120-240
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1075

Contr.-rod trav.mm: 9.80...9.90

Del.quantity cm3/ : 4.2...4.3

100H.: (4.0...4.4)

Dispersion cm3/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 8.6...8.8

Del.quantity cm3/ : 0.8...1.4

100H.: (0.6...1.5)

Dispersion cm3/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 5.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1075

Del.quantity cm3/ : 42.0...43.0

1000H.: (40.5...44.5)

Dispersion cm3/ : 2.50

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 48...56

Testing:

1st c-rod trav.mm : 8.80

Speed 1/min : 1115...1125

2nd c-rod trav.mm : 4.00

Speed 1/min : 1140...1170

3rd c-rod trav.mm : 4.00

Speed 1/min : 1230...1260
4th speed 1/min : 1390
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 17...25
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 8.2

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 8.10...8.30
C-rod trav.mm : 2.00
Speed 1/min : 660...720

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1075
C-rod trav.mm : 9.80...9.90
2nd speed 1/min : 500
C-rod trav.mm : 10.60...10.70
4th speed 1/min : 1025
C-rod trav.mm : 9.90...10.10

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 900
Del.quantity cm³/ 1000H.: 43.0...45.0
1000H.: (41.0...47.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 26

Edition : 28.11.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 463 152

Injection pump

Pump designation : PES3A80D410/3RS1350

EP type number : 0 410 483 023

Governor

Governor design. : RSV325...1175A8C2163
-3L

Governner no. : 0 420 232 474

Customer-spec. information

Customer : KHD

Engine : F3L912

1st version kW : 34.0

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
: (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 2

SD ang. spacing°CS: 0-120-240
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 800

Contr.-rod trav.mm: 10.30...10.40

Del.quantity cm³/ : 4.9...5.0

100H.: (4.8...5.2)

Dispersion cm³/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm³/ : 1.0...1.6

100H.: (0.8...1.7)

Dispersion cm³/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 6.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 800

Del.quantity cm³/ : 49.5...50.5

1000H.: (48.0...52.0)

Dispersion cm³/ : 2.50

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 56...64

Testing:

1st c-rod trav.mm : 8.20

Speed 1/min : 1215...1225

2nd c-rod trav.mm : 4.00

Speed 1/min : 1245...1275

3rd c-rod trav.mm : 4.00

Speed 1/min : 1255...1285

4th speed 1/min : 1420
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 20...28
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 480...540

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1175
C-rod trav.mm : 9.20...9.30
2nd speed 1/min : 500
C-rod trav.mm : 10.60...10.70
4th speed 1/min : 970
C-rod trav.mm : 9.90...10.10

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 1175
Del.quantity cm³/ : 47.5...51.5
1000H.: (45.5...53.5)
Speed 1/min : 500
Del.quantity cm³/ : 48.5...49.5
1000H.: (46.5...51.5)
Dispersion cm³/ : 2.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 27

Edition : 30.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 463 153

Injection pump

Pump designation : PES3A80D410/3RS1350

EP type number : 0 410 483 023

Governor

Governor design. : RSV325...1250A2C2168
-3L

Governer no. : 0 420 232 475

Customer-spec. information

Customer : KHD

Engine : F3L912

1st version kW : 40.0

Speed 1/min: 2500

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
: (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 2

SD ang. spacing°CS: 0-120-240

Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1250

Contr.-rod trav.mm: 10.10...10.20

Del.quantity cm³/ : 5.7...5.8

100H.: (5.6...6.0)

Dispersion cm³/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 6.8...7.0

Del.quantity cm³/ : 1.0...1.6

100H.: (0.8...1.7)

Dispersion cm³/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 3.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Del.quantity cm³/ : 57.5...58.5

1000H.: (56.0...60.0)

Dispersion cm³/ : 2.50

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 42...50

Testing:

1st c-rod trav.mm : 9.10

Speed 1/min : 1290...1300

2nd c-rod trav.mm : 4.00

Speed 1/min : 1315...1345

3rd c-rod trav.mm : 4.00

Speed 1/min : 1335...1365
4th speed 1/min : 1500
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 13...21
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 465...525

TORQUE CONTROL

Dimension a mm : 0.80
Torque-control curve - 1st version
1st speed 1/min : 1250
C-rod trav.mm : 10.10...-10.20
2nd speed 1/min : 500
C-rod trav.mm : 10.90...11.00
4th speed 1/min : 1025
C-rod trav.mm : 10.50...10.70

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ : 54.0...56.0
1000H.: (52.0...58.0)
Dispersion cm³/ : 2.00

Remarks:

: TKS2.50

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 29

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 463 154

Injection pump

Pump designation : PES3A80D410/3RS1350

EP type number : 0 410 483 023

Governor

Governor design. : RSV325...1175A8C2223
-L

Governor no. : 0 420 232 482

Customer-spec. information

Customer : KHD

Engine : F3L912

1st version kW : 33.0

Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
: (1.85...2.05)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 3- 2SD ang. spacing°CS: 0-120-240
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 750

Contr.-rod trav.mm: 10.20...10.30

Del.quantity cm3/ : 4.8...4.9

100H.: (4.6...5.0)

Dispersion cm3/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Confr.-rod trav. m: 6.2...6.4

Del.quantity cm3/ : 1.0...1.6

100H.: (0.8...1.7)

Dispersion cm3/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 750

Del.quantity cm3/ : 48.0...49.0

1000H.: (46.5...50.5)

Dispersion cm3/ : 2.50

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 54...62

Testing:

1st c-rod trav.mm : 8.10

Speed 1/min : 1215...1225

2nd c-rod trav.mm : 4.00

Speed 1/min : 1240...1270

3rd c-rod trav.mm : 4.00

Speed 1/min : 1245...1275
4th speed 1/min : 1420
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 19...27
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 5.8

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 6.20...6.40
C-rod trav.mm : 2.00
Speed 1/min : 460...520

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1175
C-rod trav.mm : 9.00...9.30
2nd speed 1/min : 500
C-rod trav.mm : 10.30...10.40
4th speed 1/min : 920
C-rod trav.mm : 9.90...10.30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 1175
Del.quantity cm³/ : 46.0...51.0
1000H.: (44.0...53.0)
Speed 1/min : 500
Del.quantity cm³/ : 45.5...48.5
1000H.: (43.5...50.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : SOA 3,7 A

Edition : 14.11.86

Superceeded : 4.85

Calibrating oil : ISO-4113

Combination no. : 0 400 464 095

Injection pump

Pump designation : PES4A80D410/3RS1183

EP type number : 0 410 484 013

Governor

Governor design. : RSV325...1150A8C493-
1L

Governer no. : 0 420 232 479

Customer-spec. information

Customer : SONACOME

Engine : F4L912

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder

assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6.00X2.00X600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00

: (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 4- 2

SD äng. spacing°CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 10.60...10.70

Del.quantity cm3/ : 5.0...5.1

100H.: (4.8...5.2)

Dispersion cm3/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 9.5...9.5

Del.quantity cm3/ : 1.6...2.2

100H.: (1.5...2.4)

Dispersion cm3/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 3.50

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm3/ : 50.0...51.0

1000H.: (48.5...52.5)

Dispersion cm3/ : 2.00

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 47...55

Testing:

1st c-rod trav.mm : 9.60

Speed 1/min : 1190...1200

2nd c-rod trav.mm : 4.00

Speed 1/min : 1220...1250

3rd c-rod trav.mm : 4.00

Speed 1/min : 1245...1275

4th speed 1/min : 1350

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 13...21

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 8.9

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 9.30...9.50

C-rod trav.mm : 2.00

Speed 1/min : 480...540

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1150

C-rod trav.mm : 10.60...10.70

2nd speed 1/min : 450

C-rod trav.mm : 11.60...11.70

3rd speed 1/min : 900

C-rod trav.mm : 11.00...11.30

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : SOA 3,7 A 1

Edition : 17.12.86

Superceded : 4.85

Calibrating oil : ISO-4113

Combination no. : 0 400 464 104

Injection pump

Pump designation : PES4A75D410/3RS1183

EP type number : 0 410 474 978

Governor

Governor design. : RSV325...1400A8C742-
1L

Governer no. : 0 420 232 480

Customer-spec. information

Customer : SONACOME /ALGER.

Engine : F4L912

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6.00X2.00X600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00

: (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 4- 2

SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11.00...11.10

Del.quantity cm3/ : 5.5...5.6

100H.: (5.3...5.7)

Dispersion cm3/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 7.9...8.1

Del.quantity cm3/ : 0.7...1.3

100H.: (0.5...1.4)

Dispersion cm3/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 5.75

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm3/ : 55.0...56.0

1000H.: (53.5...57.5)

Dispersion cm3/ : 2.00

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 65...73

Testing:

1st c-rod trav.mm : 10.00

Speed 1/min : 1440...1450

2nd c-rod trav.mm : 4.00

Speed 1/min : 1485...1515

3rd c-rod trav.mm : 4.00

Speed 1/min : 1525...1555

4th speed 1/min : 1700

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 18...26
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 7.5

Testing:
Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 7.90...8.10
C-rod trav.mm : 2.00
Speed 1/min : 640...700

TORQUE CONTROL
Torque-control curve - 1st version
1st speed 1/min : 1400
C-rod trav.mm : 11.00...11.10
2nd speed 1/min : 500
C-rod trav.mm : 12.00...12.10
3rd speed 1/min : 885
C-rod trav.mm : 11.40...11.60

FUEL-DELIVERY CHARACTERISTICS
Speed 1/min : 800
Del.quantity cm³/ 1000H.: 50.0...52.0
(48.5...53.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 5,7 E
 Edition : 14.11.86
 Superceded : 10.85
 Calibrating oil : ISO-4113

Combination no. : 0 400 466 045

Injection pump
 Pump designation : PES6A75D410/3RS1197
 EP type number : 0 410 476 986
 Governor
 Governor design. : RSV325...1150A8C494-
 1L
 Governor no. : 0 420 232 481

Customer-spec. information
 Customer : SONACOME

Engine : F6L912

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
 : (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1130

Contr.-rod trav.mm: 10.50...10.60

Del.quantity cm3/ : 4.3...4.4

100H.: (4.2...4.6)

Dispersion cm3/ : 0.2

100H.: (0.3)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 8.4...8.6

Del.quantity cm3/ : 0.8...1.4

100H.: (0.6...1.5)

Dispersion cm3/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1130

Del.quantity cm3/ : 43.5...44.5

1000H.: (42.0...46.0)

Dispersion cm3/ : 2.00

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 47...55

Testing:

1st c-rod trav.mm : 9.50

Speed 1/min : 1170...1180

2nd c-rod trav.mm : 4.00

Speed 1/min : 1195...1225

3rd c-rod trav.mm : 4.00

Speed 1/min : 1220...1250

4th speed 1/min : 1385

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 14...22
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 8.0

Testing:
Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 8.40...8.60
C-rod trav.mm : 2.00
Speed 1/min : 455...515

TORQUE CONTROL
Torque-control curve - 1st version
1st speed 1/min : 1130
 C-rod trav.mm : 10.50...10.60
2nd speed 1/min : 500
 C-rod trav.mm : 11.50...11.60
3rd speed 1/min : 930
 C-rod trav.mm : 10.90...11.10

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : COU 2.0 A

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 472 033

Injection pump

Pump designation : PES2A70D310RS1233

EP type number : 0 410 472 009

Governor

Governor design. : RSV200...1250A1B527L

Governer no. : 0 420 232 145

Customer-spec. information

Customer : COUACHE

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening

pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6.00x2.00x600

(A) Injection pump setting values

Irsp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00

: (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 2

SD ang. spacing°CS: 0-90
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 9.40...9.50

Del.quantity cm3/ : 3.9...4.0

100H.: (3.8...4.1)

Dispersion cm3/ : 0.2

100H.: (0.3)

2nd speed 1/min: 200.0

Contr.-rod trav. m: 6.4...6.6

Del.quantity cm3/ : 0.8...1.4

100H.: (0.6...1.5)

Dispersion cm3/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm3/ : 39.0...40.0

1000H.: (38.0...41.0)

Dispersion cm3/ : 2.00

1000H.: (3.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: ?

Testing:

1st c-rod trav.mm : 8.40

Speed 1/min : 1310...1320

2nd c-rod trav.mm : 4.00

Speed 1/min : 1330...1360

3rd c-rod trav.mm : 4.00

4th speed 1/min : 1480

C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: ?

Setting point w/out aux. spring

Speed 1/min : 200

Contr.-rod trav.mm: 6.0

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 200
C-rod trav.mm : 6.40...6.60

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1000
C-rod trav.mm : 9.40...9.50
2nd speed 1/min : 500
C-rod trav.mm : 9.40...9.60

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : STE 3,1 B
 Edition : 12.09.86
 Superceded : 10.85
 Calibrating oil : ISO-4113

Combination no. : 0 400 474 152

Injection pump
 Pump designation : PES4A75D410RS1215
 EP type number : 0 410 474 969
 Governor
 Governor design. : RSV250...900A7B719DL
 Governer no. : 0 420 234 327

Customer-spec. information
 Customer : STEYR

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.45...2.55
 : (2.40...2.60)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 4- 2

SD ang. spacing°CS: 0-90-180-270
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 900

Contr.-rod trav.mm: 11.50...11.60

Del.quantity cm³/ : 5.8...5.9

100H.: (5.7...6.1)

Dispersion cm³/ : 0.2

100H.: (0.4)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 5.4...5.6

Del.quantity cm³/ : 1.0...1.6

100H.: (0.8...1.7)

Dispersion cm³/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

Governor-spring reload

Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 900

Del.quantity cm³/ : 58.5...59.5

1000H.: (57.0...61.0)

Dispersion cm³/ : 2.50

1000H.: (4.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 56...64

Testing:

1st c-rod trav.mm : 10.50

Speed 1/min : 930...940

2nd c-rod trav.mm : 4.00

Speed 1/min : 965...995

4th speed 1/min : 1100

C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 21...29

Setting point w/out aux. spring

Speed 1/min : 250

Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 250
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 405...465

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 900
C-rod trav.mm : 11.50...11.60
2nd speed 1/min : 500
C-rod trav.mm : 11.70...11.90
3rd speed 1/min : 750
C-rod trav.mm : 11.70...11.90

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 19.0 N2

Edition : 12.09.86

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 0 400 640 107

Injection pump

Pump designation : PE12A95D610LS2590

EP type number : 0 410 690 995

Governor

Governor design. : RQV300...1150AB1047D

Governer no. : 0 420 214 242

Customer-spec. information

Customer : KHD

Engine : F12L413FW

1st version kW : 230.0

Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.50...1.60
: (1.45...1.65)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 4- 9- 8- 5- 2-
11- 10- 3- 6- 7- 12SD ang. spacing°CS: 0-15-60-75-120-135-
180-195-240-255-300-
315

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 9.30...9.40

Del.quantity cm3/ : 6.9...7.1

100H.: (6.7...7.3)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 7.2...7.4

Del.quantity cm3/ : 1.4...2.0

100H.: (1.1...2.2)

Dispersion cm3/ : 0.7

100H.: (-)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300

Sleeve travel mm: 1.20...1.30

2nd speed 1/min: 400

Sleeve travel mm: 2.20...2.60

3rd speed 1/min: 600

Sleeve travel mm: 3.00...3.50

4th speed 1/min: 1195

Sleeve travel mm: 8.40...8.50

5th speed 1/min: 1245

Sleeve travel mm: 9.10...9.30

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1200

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm³/ : 69.0...71.0
1000H.: (67.0...73.0)
Dispersion cm³/ : 3.50
1000H.: (6.00)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 61...69

Testing:
1st c-rod trav.mm : 8.30
Speed 1/min : 1190...1200
2nd c-rod trav.mm : 4.00
Speed 1/min : 1230...1260
4th speed 1/min : 1350
C-rod trav.mm : 0...1.0

LOWEST RATED SPEED I

Control-lever
position degrees: 8...16

Testing:
Speed 1/min : 100
C-rod trav.mm min : 7.80
Speed 1/min : 300
C-rod trav.mm : 6.20...6.40

CONSTANT REGULATION

Speed 1/min : 320...430

TORQUE CONTROL

Dimension a mm : 1.00
Torque-control curve - 1st version
1st speed 1/min : 1150
C-rod trav.mm : 9.30...9.40
2nd speed 1/min : 500
C-rod trav.mm : 10.30...10.40
3rd speed 1/min : 935
C-rod trav.mm : 10.00...10.20
4th speed 1/min : 1045
C-rod trav.mm : 9.50...9.70

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 77.5...80.5
1000H.: (75.0...83.0)
Speed 1/min : 800
Del.quantity cm³/ : 98.5...101.5
1000H.: (96.0...104.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

11- 10- 3- 6- 7- 12

Note inst. in remarks column

Test sheet : KHD 19,0 N3

Edition : 12.09.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 0 400 640 112

Injection pump

Pump designation : PE12A95D610LS2590

EP type number : 0 410 690 995

Governor

Governor design. : RQV300...1150AB1086L

Governor no. : 0 420 212 113

Customer-spec. information

Customer : KHD

Engine : F12L413F

1st version kW : 235.0

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.50...1.60
: (1.45...1.65)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 4- 9- 8- 5- 2-

SD ang. spacing°CS: 0-15-60-75-120-135-

180-195-240-255-300-

315

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 9.50...9.60

Del.quantity cm³/ : 7.9...8.1

100H.: (7.7...8.3)

Dispersion cm³/ : 0.3

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 6.4...6.6

Del.quantity cm³/ : 1.0...1.6

100H.: (0.7...1.8)

Dispersion cm³/ : 0.3

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 250

Sleeve travel mm: 0.30...0.50

2nd speed 1/min: 600

Sleeve travel mm: 2.70...3.00

3rd speed 1/min: 1000

Sleeve travel mm: 5.90...6.10

4th speed 1/min: 1190

Sleeve travel mm: 8.30...8.50

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1200

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm³/ : 79.0...81.0

1000H.: (77.0...83.0)

Dispersion cm³/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 56...64

Testing:

1st c-rod trav.mm : 8.50
Speed 1/min : 1190...1200

2nd c-rod trav.mm : 4.00
Speed 1/min : 1230...1260

4th speed 1/min : 1350
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever

position degrees: 18...26

Setting point w/out aux. spring

Speed 1/min : 300

Contr.-rod trav.mm: 6.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 8.00

Speed 1/min : 300
C-rod trav.mm : 6.40...6.60

CONSTANT REGULATION

Speed 1/min : 420...540

TORQUE CONTROL

Dimension a mm : 0.90

Torque-control curve - 1st version

1st speed 1/min : 1150
C-rod trav.mm : 9.50...9.60

2nd speed 1/min : 500
C-rod trav.mm : 10.40...10.50

3rd speed 1/min : 990
C-rod trav.mm : 10.10...10.30

4th speed 1/min : 1060
C-rod trav.mm : 9.60...9.90

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del.quantity cm³/ : 84.5...87.5
1000H.: (82.0...90.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 12.7 P4

Edition : 30.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 648 145

Injection pump

Pump designation : PE8A95D410LS2608

EP type number : 0 410 698 988

Governor

Governor design. : RQ300/1100AB1230L

Governor no. : 0 420 200 108

Customer-spec. information

Customer : KHD

Engine : F8L413F

1st version kW : 162.0

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.00...2.10
: (1.95...2.15)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 8- 7- 2- 6- 5-
4- 3

SD ang. spacing °CS: 0-45-90-135-180-225-

270-315

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10.10...10.20

Del.quantity cm3/ : 9.0...9.2

100H.: (8.8...9.4)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 6.4...6.6

Del.quantity cm3/ : 1.0...1.6

100H.: (0.7...1.8)

Dispersion cm3/ : 0.5

100H.: (0.7)

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 550

Cont.-rod travelmm: 15.60...16.40

Governor-spring reload

Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 90.0...92.0

100H.: (88.0...94.0)

Dispersion cm3/ : 3.50

100H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: ?

Testing:

1st c-rod trav.mm : 9.10

Speed 1/min : 1145...1160

2nd c-rod trav.mm : 4.00

Speed 1/min : 1205...1235

LOWEST RATED SPEED I

Control-lever

position degrees: ?

Setting point w/out aux. spring

Speed 1/min : 300

Contr.-rod trav.mm: 6.5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8.00

Speed 1/min : 300

C-rod trav.mm : 6.40...6.60

C-rod trav.mm : 2.00

Speed 1/min : 355...395

TORQUE CONTROL

Dimension a mm : 0.35

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 10.10...10.20

2nd speed 1/min : 550

C-rod trav.mm : 10.80...10.90

3rd speed 1/min : 810

C-rod trav.mm : 10.60...10.80

4th speed 1/min : 980

C-rod trav.mm : 10.30...10.50

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 700

Del.quantity cm³/

1000H.: (90.0...98.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 15,8 N1

Edition : 09.03.87

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 0 400 649 219

Injection pump

Pump designation : PE10A95D610/4LS2589

EP type number : 0 410 699 994

Governor

Governor design. : RQV300...1150AB1047D

Governer no. : 0 420 214 242

Customer-spec. information

Customer : KHD

Engine : F10L '13

1st version kW : 192.0

Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.50...1.60
: (1.45...1.65)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1-10- 9- 4- 3- 6-
5- 8- 7- 2SD ang. spacing°CS: 0-27-72-99-144-171-
216-243-288-315

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1150

Contr.-rod trav.mm: 8.30...8.40

Del.quantity cm3/ : 6.9...7.1

100H.: (6.7...7.3)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 6.2...6.4

Del.quantity cm3/ : 1.4...2.0

100H.: (1.1...2.2)

Dispersion cm3/ : 0.3

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300

Sleeve travel mm: 1.20...1.30

2nd speed 1/min: 400

Sleeve travel mm: 2.30...2.70

3rd speed 1/min: 600

Sleeve travel mm: 3.00...3.50

4th speed 1/min: 1195

Sleeve travel mm: 8.40...8.50

5th speed 1/min: 1235

Sleeve travel mm: 8.90...9.10

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1190

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm3/ : 69.0...71.0

1000H.: (67.0...73.0)

Dispersion cm³/ : 3.50
1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 62...70

Testing:

1st c-rod trav.mm : 7.30
Speed 1/min : 1190...1200
2nd c-rod trav.mm : 4.00
Speed 1/min : 1220...1250
4th speed 1/min : 1350
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 11...19

Testing:

Speed 1/min : 100
C-rod trav.mm min : 7.80
Speed 1/min : 300
C-rod trav.mm : 6.20...6.40

CONSTANT REGULATION

Speed 1/min : 320...430

TORQUE CONTROL

Dimension a mm : 1.00
Torque-control curve - 1st version
1st speed 1/min : 1150
C-rod trav.mm : 8.30...8.40
2nd speed 1/min : 500
C-rod trav.mm : 9.30...9.40
3rd speed 1/min : 935
C-rod trav.mm : 9.00...9.20
4th speed 1/min : 1045
C-rod trav.mm : 8.50...8.70

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ : 75.5...78.5
1000H.: (73.0...81.0)
Speed 1/min : 800
Del.quantity cm³/ : 98.5...101.5
1000H.: (96.0...104.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MAN 16_0C10

Edition : 12.09.86

Superceeded : 4.85

Calibrating oil : ISO-4113

Combination no. : 0 400 649 235

Injection pump

Pump designation : PE10A95D520/SLS2501

EP type number : 0 410 699 997

Governor

Governor design. : RQV250...1250AB1180R

Governor no. : 0 420 213 095

Customer-spec. information

Customer : MAN

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 003

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.70...1.80
: (1.65...1.85)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 10- 9- 4- 1- 8- 7

Cam sequence : - 6- 3- 5- 2

SD ang. spacing°CS: 0-45-72-117-144-189-
216-261-288-333

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 10

BASIC SETTING

1st speed 1/min: 1250

Contr.-rod trav.mm: 11.30...11.40

Del.quantity cm3/ : 12.3...12.5

100H.: (12.1...12.7)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm3/ : 1.5...2.1

100H.: (1.2...2.3)

Dispersion cm3/ : 0.3

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 200

Sleeve travel mm: 0.70...0.90

2nd speed 1/min: 425

Sleeve travel mm: 2.80...3.10

3rd speed 1/min: 1000

Sleeve travel mm: 5.60...5.80

4th speed 1/min: 1290

Sleeve travel mm: 8.10...8.20

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1325

Cont.-rod travemm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Charge press. hPa : 700

Del.quantity cm3/ : 123.0...125.0

1000H.: (121.0...127.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 42...50

Testing:
1st c-rod trav.mm : 10.30
Speed 1/min : 1290...1300
2nd c-rod trav.mm : 4.50
Speed 1/min : 1355...1385
4th speed 1/min : 1500
C-rod trav.mm : 0.00...1.00

Speed 1/min : 500
Del.quantity cm³/ 1000H. : 76.5...79.5
(74.5...81.5)

LOWEST RATED SPEED I
Control-lever
position degrees: 10...18

Remarks:

Testing:
Speed 1/min : 100
C-rod trav.mm min : 7.50
Speed 1/min : 250
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 520...380
Speed 1/min : 500
C-rod trav.mm max : 1.00

TORQUE CONTROL
Torque-control curve - 1st version
1st speed 1/min : 1250
C-rod trav.mm : 11.30...11.40
2nd speed 1/min : 500
C-rod trav.mm : 11.30...11.50

compensator (LDA,ADA,ALDA)

1st version
Setting
Speed 1/min : 500
Pressure hPa : 700
Contr.-rod trav.mm: 11.30...11.40

Measurement
Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 9.20...9.30
2nd pressure hPa : 387
C-rod trav.mm : 10.60...10.90
3rd pressure hPa : 280
C-rod trav.mm : 9.50...9.70

SWITCH-OVER POINT
Speed 1/min : 170 (190)

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 700
Speed 1/min : 750
Del.quantity cm³/ 1000H. : 119.5...122.5
(117.5...124.5)
Charge press. hPa : -

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DAF 8.3 I 1
Edition : 09.03.87
Superceeded : 1.85
Calibrating oil : ISO-4113

Combination no. : 0 400 676 151

Injection pump
Pump designation : PE6A90D410RS2524
EP type number : 0 410 696 179
Governor
Governor design. : RSV250...1200ASB2012
Governor no. : 0 420 234 379

Customer-spec. information
Customer : DAF

Engine : DH825
Speed 1/min: 2400

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6.00X1.50X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.30...2.40
: (2.25...2.35)

Contr.-rod trav.mm: 7.50...10.50

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing^oCS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 8.50...9.50
Difference^o CS : 4.50...5.50

BASIC SETTING

1st speed 1/min: 1000

Contr.-rod trav.mm: 9.40...9.50

Del.quantity cm³/ : 7.1...7.2

100H.: (6.9...7.4)

Dispersion cm³/ : 0.3

100H.: (0.4)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 6.5...6.7

Del.quantity cm³/ : 0.9...1.5

100H.: (0.7...1.7)

Dispersion cm³/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travlmm: 0.30...1.00

Governor-spring reload

Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm³/ : 71.0...72.0

1000H.: (69.0...74.0)

Dispersion cm³/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 45...53

Testing:

1st c-rod trav.mm : 8.40

Speed 1/min : 1240...1250

2nd c-rod trav.mm : 4.00
Speed 1/min : 1260...1290
4th speed 1/min : 1480
C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever
position degrees: 12...20
Setting point w/out aux. spring
Speed 1/min : 250
Contr.-rod trav.mm: 5.5
Speed 1/min : 250
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 580...640

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1000
C-rod trav.mm : 9.40...9.50
2nd speed 1/min : 400
C-rod trav.mm : 9.40...9.60
3rd speed 1/min : 300
C-rod trav.mm : 9.70...10.20

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DAF 6,2 K 1

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 676 154

Injection pump

Pump designation : PE6A85D320RS2546

EP type number : 0 410 686 943

Governor

Governor design. : RSV250...1300A1B2025

R

Governer no. : 0 420 233 129

Customer-spec. information

Customer : DAF

Engine : DF615

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter

x Wall thickness

x Length mm : 6.00x1.50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.15...2.25

: (2.10...2.30)

Contr.-rod trav.mm: 7.50...10.50

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - " : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 8.50...9.50

Difference ° CS : 3.00...4.00

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 10.40...10.50

Del.quantity cm3/ : 5.6...5.7

100H.: (5.4...5.9)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 8.1...8.3

Del.quantity cm3/ : 1.4...1.9

100H.: (1.2...2.1)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

Governor-spring reload

Notch setting x : 4.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm3/ : 56.0...57.0

1000H.: (54.0...59.0)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 63...71

Testing:

1st c-rod trav.mm : 9.40

Speed 1/min : 1340...1350

2nd c-rod trav.mm : 4.00

Speed 1/min : 1355...1385
3rd c-rod trav.mm : 4.00
Speed 1/min : 1380...1410
4th speed 1/min : 1540
C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever
position degrees: 17...25
Setting point w/out aux. spring
Speed 1/min : 250
Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 250
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 470...530

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1000
C-rod trav.mm : 10.40...10.50
2nd speed 1/min : 400
C-rod trav.mm : 10.40...10.60
3rd speed 1/min : 300
C-rod trav.mm : 10.70...11.20

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DAF 8,3 N 2

Edition : 09.03.87

Superceeded : 10.84

Calibrating oil : ISO-4113

Combination no. : 0 400 676 172

Injection pump

Pump designation : PE6A95D410RS2575Y

EP type number : 0 410 696 981

Governor

Governor design. : RSV250...750A7B2124L

Governor no. : 0 420 232 257

Customer-spec. information

Customer : DAF

Engine : DHTD 825

Speed 1/min: 1500

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder

assembly : 0 681 343 009

Opening

pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter

x Wall thickness

x Length mm : 6.00x1.50x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.

per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.00...2.10

: (1.95...2.15)

Contr.-rod trav.mm: 7.50...10.50

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing °CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 8.50...9.50

Difference ° CS : 3.00...4.00

BASIC SETTING

1st speed 1/min: 750

Contr.-rod trav.mm: 13.20...13.30

Del.quantity cm³/ : 11.0...11.2

100H.: (10.8...11.4)

Dispersion cm³/ : 0.4

100H.: (0.6)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 6.0...6.2

Del.quantity cm³/ : 0.7...1.3

100H.: (-)

Dispersion cm³/ : 0.2

100H.: (-)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

Governor-spring reload

Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 750

Del.quantity cm³/ : 110.5...112.5

100H.: (108.5...114.5)

Dispersion cm³/ : 4.00

100H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 36...44

Testing:

1st c-rod trav.mm : 12.20

Speed 1/min : 770...780

2nd c-rod trav.mm : 4.00

Speed 1/min : 785...805
4th speed 1/min : 955
C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 12...20
Setting point w/out aux. spring
Speed 1/min : 250
Contr.-rod trav.mm: 6.1
Speed 1/min : 250
C-rod trav.mm : 6.00...6.20
C-rod trav.mm : 2.00
Speed 1/min : 260...320

SET IDLE AUXILIARY SPRING

Contr.-rod trav.mm: 2.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DAF 6,2 N 3

Edition : 09.03.87

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 0 400 676 179

Injection pump

Pump designation : PE6A90D320RS2577

EP type number : 0 410 696 181

Governor

Governor design. : RSV250...750A7C2202R

Governor no. : 0 420 233 202

Customer-spec. information

Customer : DAF

Engine : DT 615

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter

x Wall thickness

x Length mm : 6.00x1.50x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.

per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.20...2.30

: (2.15...2.35)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing °CS: 0-60-120-180-240-300

Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 8.50...9.50

Difference ° CS : 2.50...3.50

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 11.00...11.10

Del.quantity cm³/ : 7.4...7.6

100H.: (7.2...7.8)

Dispersion cm³/ : 0.4

100H.: (0.5)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm³/ : 0.8...1.4

100H.: (0.6...1.6)

Dispersion cm³/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 5.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm³/ : 74.0...76.0

1000H.: (72.0...78.0)

Dispersion cm³/ : 4.00

1000H.: (5.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 40...48

Testing:

1st c-rod trav.mm : 10.00

Speed 1/min : 750...755

2nd c-rod trav.mm : 4.00

Speed 1/min : 780...795

4th speed 1/min : 950
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 17...25
Setting point w/out aux. spring
Speed 1/min : 250
Contr.-rod trav.mm: 6.0

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 250
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 280...340

SET IDLE AUXILIARY SPRING

Contr.-rod trav.mm: 2.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DAF 8,3 K 6

Edition : 07.11.86

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 0 400 676 184

Injection pump

Pump designation : PE6A95D410RS2525

EP type number : 0 410 696 987

Governor

Governor design. : RSV250...1200ASC2199
-1L

Governer no. : 0 420 232 450

Customer-spec. information

Customer : DAF

Engine : DHTD 825

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.00...2.10

: (1.95...2.15)

Contr.-rod trav.mm: 7.50...10.50

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 8.50...9.50

& c-rod trav max. : 21.0

Difference ° CS : 3.00...4.00

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 12.60...12.70

Del.quantity cm3/ : 10.9...11.0

100H.: (10.7...11.2)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 6.0...6.2

Del.quantity cm3/ : 0.7...1.1

100H.: (0.4...1.3)

Dispersion cm3/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 4.25

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Charge press. hPa : 700

Del.quantity cm3/ : 109.0...110.0

1000H.: (107.0...112.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 51...59

Testing:

1st c-rod trav.mm : 11.60

Speed 1/min : 1230...1240
2nd c-rod trav.mm : 4.00
Speed 1/min : 1290...1320
3rd c-rod trav.mm : 4.00
Speed 1/min : 1310...1340
4th speed 1/min : 1490
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 17...25
Setting point w/out aux. spring
Speed 1/min : 250
Contr.-rod trav.mm: 5.6
Speed 1/min : 250
C-rod trav.mm : 6.00...6.20
C-rod trav.mm : 2.00
Speed 1/min : 445...505

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1000
C-rod trav.mm : 13.40...13.50
2nd speed 1/min : 400
C-rod trav.mm : 13.60...13.70
3rd speed 1/min : 300
C-rod trav.mm : 13.80...14.30

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 1000
Pressure hPa : 700
Contr.-rod trav.mm: 12.60...12.70

Measurement

Speed 1/min : 1000

1st pressure hPa : -
C-rod trav.mm : 11.50...11.60
2nd pressure hPa : 300
C-rod trav.mm : 12.30...12.40
3rd pressure hPa : 260
C-rod trav.mm : 11.70...11.90

FUEL-DELIVERY CHARACTERISTICS

Charge press. hPa : -
Speed 1/min : 600
Del.quantity cm³/ 1000H.: 85.5...86.5
(83.5...88.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 4,0 A
 Edition : 09.03.87
 Superceeded : 12.84
 Calibrating oil : ISO-4113

Combination no. : 0 400 844 083

Injection pump
 Pump designation : PES4A90D410RS2666
 EP type number : 0 410 894 029
 Governor
 Governor design. : RQV300...1400AB1065-
 SL
 Governer no. : 0 420 212 169

Customer-spec. information
 Customer : DAIMLER-BENZ

Engine : OM364

1st version kW : 66.0
 Speed 1/min: 2800

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
 x Wall thickness
 x Length mm : 6.00x1.50x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.25...2.35
 : (2.20...2.40)

Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 3- 4- 2

SD ang. spacing°CS: 0-90-180-270
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 10.90...11.00

Del.quantity cm3/ : 6.3...6.4

100H.: (6.1...6.6)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 8.6...8.8

Del.quantity cm3/ : 0.8...1.2

100H.: (0.6...1.4)

Dispersion cm3/ : 0.2

100H.: (0.4)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300

Sleeve travel mm: 0.80...1.30

2nd speed 1/min: 500

Sleeve travel mm: 2.30...2.80

3rd speed 1/min: 750

Sleeve travel mm: 4.10...4.30

4th speed 1/min: 1500

Sleeve travel mm: 8.50...8.60

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1500

Cont.-rod travellmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm3/ : 63.0...64.0

1000H.: (61.0...66.0)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 58...66

Testing:

1st c-rod trav.mm : 9.90
Speed 1/min : 1450...1460
2nd c-rod trav.mm : 4.00
Speed 1/min : 1560...1590
4th speed 1/min : 1630
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 20...28

Testing:

Speed 1/min : 100
C-rod trav.mm min : 10.20
Speed 1/min : 300
C-rod trav.mm : 8.60...8.80

CONSTANT REGULATION

Speed 1/min : 540...680

TORQUE CONTROL

Dimension a mm : 1.00
Torque-control curve - 1st version
1st speed 1/min : 1400
C-rod trav.mm : 10.90...11.00
2nd speed 1/min : 630
C-rod trav.mm : 12.20...12.30
3rd speed 1/min : 900
C-rod trav.mm : 11.60...11.80

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 630
Del.quantity cm³/ : 55.5...58.5
1000H.: (53.0...61.0)
Speed 1/min : 900
Del.quantity cm³/ : 54.5...57.5
1000H.: (52.0...60.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MAN 11_1P23

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 846 516

Injection pump

Pump designation : PES6A95D410LS2542

EP type number : 0 410 896 936

Governor

Governor design. : RQV250...1100AB1177L

Governor no. : 0 420 212 162

Customer-spec. information

Customer : MAN

Engine : D2566 M/MF

1st version kW : 177.0

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.50...1.60
: (1.45...1.65)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 6

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 12.00...12.10

Del.quantity cm3/ : 10.8...11.0

100H.: (10.6...11.2)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 6.7...6.9

Del.quantity cm3/ : 0.9...1.4

100H.: (0.6...1.6)

Dispersion cm3/ : 0.3

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 150

Sleeve travel mm: 0.40...0.70

2nd speed 1/min: 550

Sleeve travel mm: 3.60...4.00

3rd speed 1/min: 900

Sleeve travel mm: 5.60...6.10

4th speed 1/min: 1200

Sleeve travel mm: 9.50...10.20

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1115

Cont.-rod travemm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm3/ : 108.5...110.5

100H.: (106.5...112.5)

Dispersion cm3/ : 3.50

100H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 43...51

Testing:

1st c-rod trav.mm : 11.00
Speed 1/min : 1140...1150
2nd c-rod trav.mm : 4.00
Speed 1/min : 1180...1210
4th speed 1/min : 1300
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 9...17

Testing:

Speed 1/min : 100
C-rod trav.mm min : 8.20
Speed 1/min : 250
C-rod trav.mm : 6.60...6.80
C-rod trav.mm : 2.00
Speed 1/min : 335...395

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 12.00...12.10
2nd speed 1/min : 500
C-rod trav.mm : 12.00...12.20

SWITCH-OVER POINT

Speed 1/min : 170 (190)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ 1000H.: 107.5...111.5
1000H.: (105.0...114.0)
Speed 1/min : 1100
Del.quantity cm³/ 1000H.: 100.0...103.0
1000H.: (97.5...105.5)

Remarks:

: MAN-NR. 2-7440

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MAN 11_1P20

Edition : 09.03.87

Superceeded : 5.85

Calibrating oil : ISO-4113

Combination no. : 0 400 846 518

Injection pump

Pump designation : PES6A9SD410LS2542

EP type number : 0 410 896 936

Governor

Governor design. : RQV250...1100AB1177L

Governer no. : 0 420 212 162

Customer-spec. information

Customer : MAN

Engine : D2566 M/MF

1st version kW : 177.0

Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.50...1.60
: (1.45...1.65)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 6

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 12.00...12.10

Del.quantity cm3/ : 10.8...11.0

100H.: (10.6...11.2)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 6.7...6.9

Del.quantity cm3/ : 0.9...1.4

100H.: (0.6...1.6)

Dispersion cm3/ : 0.3

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 150

Sleeve travel mm: 0.40...0.70

2nd speed 1/min: 550

Sleeve travel mm: 3.60...4.00

3rd speed 1/min: 900

Sleeve travel mm: 5.60...6.10

4th speed 1/min: 1200

Sleeve travel mm: 9.50...10.20

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1115

Cent.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm3/ : 108.5...110.5

1000H.: (106.5...112.5)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 43...51

Testing:

1st c-rod trav.mm : 11.00
Speed 1/min : 1140...1150
2nd c-rod trav.mm : 4.00
Speed 1/min : 1180...1210
4th speed 1/min : 1300
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 9...17

Testing:

Speed 1/min : 100
C-rod trav.mm min : 8.20
Speed 1/min : 250
C-rod trav.mm : 6.60...6.80
C-rod trav.mm : 2.00
Speed 1/min : 335...395

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1100
C-rod trav.mm : 12.00...12.10
2nd speed 1/min : 500
C-rod trav.mm : 12.00...12.20

SWITCH-OVER POINT

Speed 1/min : 170 (190)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ 107.5...111.5
1000H.: (105.0...114.0)
Speed 1/min : 1100
Del.quantity cm³/ 100.0...103.0
1000H.: (97.5...105.5)

Remarks:

: MAN-NR. 2-7441

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 6,0 A
 Edition : 09.03.87
 Superceeded : 6.85
 Calibrating oil : ISO-4113

Combination no. : 0 400 846 522

Injection pump
 Pump designation : PES6A90D410RS2667
 EP type number : 0 410 896 080
 Governor
 Governor design. : RQV300...1400AB1065-
 4L
 Governer no. : 0 420 212 168

Customer-spec. information
 Customer : DAIMLER-BENZ

Engine : OM 366

1st version kW : 100.0
 Speed 1/min: 2800

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
 x Wall thickness
 x Length mm : 6.00x1.50x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.25...2.35
 : (2.20...2.40)

Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 11.10...11.20

Del.quantity cm3/ : 6.3...6.4

100H.: (6.1...6.6)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 8.9...9.1

Del.quantity cm3/ : 0.9...1.3

100H.: (0.7...1.5)

Dispersion cm3/ : 0.2

100H.: (0.4)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300

Sleeve travel mm: 0.80...1.30

2nd speed 1/min: 500

Sleeve travel mm: 2.30...2.80

3rd speed 1/min: 750

Sleeve travel mm: 4.10...4.30

4th speed 1/min: 1500

Sleeve travel mm: 8.50...8.60

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1500

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Del.quantity cm3/ : 63.5...64.5

1000H.: (61.5...66.5)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 61...69

Testing:

1st c-rod trav.mm : 10.10
Speed 1/min : 1460...1470
2nd c-rod trav.mm : 4.00
Speed 1/min : 1560...1590
4th speed 1/min : 1630
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 21...29

Testing:

Speed 1/min : 100
C-rod trav.mm min : 10.30
Speed 1/min : 300
C-rod trav.mm : 8.90...9.10

CONSTANT REGULATION

Speed 1/min : 540...680

TORQUE CONTROL

Dimension a mm : 1.20
Torque-control curve - 1st version
1st speed 1/min : 1400
C-rod trav.mm : 11.10...11.20
2nd speed 1/min : 500
C-rod trav.mm : 12.30...12.40
3rd speed 1/min : 900
C-rod trav.mm : 11.90...12.10
4th speed 1/min : 1100
C-rod trav.mm : 11.40...11.70

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ : 52.0...54.0
1000H.: (49.5...56.5)
Speed 1/min : 900
Del.quantity cm³/ : 55.0...58.0
1000H.: (52.5...60.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MAN 11_4 B1
 Edition : 09.03.87
 Superceeded : 6.83
 Calibrating oil : ISO-4113

Combination no. : 0 400 846 524

Injection pump
 Pump designation : PES6A95D410LS2639-1
 EP type number : 0 410 896 920
 Governor
 Governor design. : RQ250/1100AB1137-7L
 Governer no. : 0 420 200 089

Customer-spec. information

Customer : MAN
 Engine : D2566MUH/MUM

1st version kW : 176.0
 Speed 1/min: 2200

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.50...1.60
 : (1.45...1.55)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 6

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 13.60...13.70

Del.quantity cm3/ : 12.0...12.2

100H.: (11.8...12.4)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 7.5...7.7

Del.quantity cm3/ : 0.9...1.5

100H.: (0.6...1.7)

Dispersion cm3/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 600

Cont.-rod travelmm: 15.60...16.40

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm3/ : 120.5...122.5

1000H.: (118.5...124.5)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

Setting point:

Speed 1/min : 600

Contr.-rod trav.mm: 16.0

Testing:

1st c-rod trav.mm : 12.60

Speed 1/min : 1145...1160

2nd c-rod trav.mm : 4.00

Speed 1/min : 1270...1300

4th speed 1/min : 1350

C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Setting point w/out aux. spring

Speed 1/min : 250

Contr.-rod trav.mm: 7.0

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8.50

Speed 1/min : 250

C-rod trav.mm : 6.90...7.10

C-rod trav.mm : 2.00

Speed 1/min : 395...435

Speed 1/min : 450

C-rod trav.mm max : 1.00

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 13.60...13.70

2nd speed 1/min : 500

C-rod trav.mm : 13.60...13.80

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500

Del.quantity cm³/ : 119.0...123.0

1000H.: (116.5...125.5)

Speed 1/min : 1100

Del.quantity cm³/ : 134.5...137.5

1000H.: (132.0...140.0)

Remarks:

: MAN-NR. 2-7357

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 6.0 A 3

Edition : 30.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 846 558

Injection pump

Pump designation : PES6A90D410RS2667

EP type number : 0 410 896 080

Governor

Governor design. : RQV300...1300AB1065-
8L

Governor no. : 0 420 212 200

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM 366

1st version kW : 97.0

Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6.00X1.50X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.25...2.35
: (2.20...2.40)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1300

Contr.-rod trav.mm: 11.20...11.30

Del.quantity cm3/ : 6.3...6.4

100H.: (6.1...6.6)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 9.1...9.3

Del.quantity cm3/ : 0.9...1.5

100H.: (0.7...1.7)

Dispersion cm3/ : 0.2

100H.: (0.4)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300

Sleeve travel mm: 0.80...1.30

2nd speed 1/min: 500

Sleeve travel mm: 2.30...2.80

3rd speed 1/min: 750

Sleeve travel mm: 4.10...4.30

4th speed 1/min: 1500

Sleeve travel mm: 8.50...8.60

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1500

Cont.-rod travel mm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1300

Del.quantity cm3/ : 63.0...64.0

1000H.: (61.0...66.0)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 54...62

Testing:

1st c-rod trav.mm : 10.20
Speed 1/min : 1340...1350
2nd c-rod trav.mm : 4.00
Speed 1/min : 1465...1495
4th speed 1/min : 1600
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 20...28

Testing:

Speed 1/min : 100
C-rod trav.mm min : 10.60
Speed 1/min : 300
C-rod trav.mm : 9.10...9.30

CONSTANT REGULATION

Speed 1/min : 525...650

TORQUE CONTROL

Dimension a mm : 1.00
Torque-control curve - 1st version
1st speed 1/min : 1300
C-rod trav.mm : 11.20...11.30
2nd speed 1/min : 750
C-rod trav.mm : 12.00...12.10
3rd speed 1/min : 950
C-rod trav.mm : 11.70...11.90
4th speed 1/min : 1100
C-rod trav.mm : 11.30...11.60

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ 1000H.: 55.0...57.0
1000H.: (52.5...59.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : LIE 8,4 B 1

Edition : 09.03.87

Superceded

Calibrating oil : ISO-4113

Combination no. : 0 400 846 562

Injection pump

Pump designation : PES6A100D410RS2687

EP type number : 0 410 806 001

Governor

Governor design. : RQV400...1000AB1231L

Governor no. : 0 420 212 206

Customer-spec. information

Customer : LIEBHERR

Engine : D906T

1st version kW : 170.0

Speed 1/min: 2000

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 40...45

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 008

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.70...2.80

: (2.65...2.85)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - " : 0.50 (0.75)

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 9.00...12.00

Difference ° CS : 4.00...5.00

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 13.30...13.40

Del.quantity cm³/ : 13.6...13.8

100H.: (13.4...14.0)

Dispersion cm³/ : 0.3

100H.: (0.6)

2nd speed 1/min: 400.0

Contr.-rod trav. m: 6.8...7.0

Del.quantity cm³/ : 1.0...1.6

100H.: (0.7...1.8)

Dispersion cm³/ : 0.3

100H.: (0.5)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 440

Sleeve travel mm: 2.10...2.30

2nd speed 1/min: 500

Sleeve travel mm: 3.00...3.50

3rd speed 1/min: 585

Sleeve travel mm: 3.50...4.00

4th speed 1/min: 1045

Sleeve travel mm: 8.10...8.20

5th speed 1/min: 1135

Sleeve travel mm: 9.40...9.70

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1065

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Charge press. hPa : 700

Det. quantity cm³/ : 136.5...138.5
1000H.: (134.5...140.5)
Dispersion cm³/ : 3.50
1000H.: (6.00)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 62...70

Testing:

1st c-rod trav.mm : 12.30
Speed 1/min : 1040...1050
2nd c-rod trav.mm : 4.00
Speed 1/min : 1130...1160
4th speed 1/min : 1250
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 12...19

Testing:

Speed 1/min : 100
C-rod trav.mm min : 8.30
Speed 1/min : 400
C-rod trav.mm : 6.80...7.00

CONSTANT REGULATION

Speed 1/min : 425...530

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1000
C-rod trav.mm : 13.30...13.40
2nd speed 1/min : 500
C-rod trav.mm : 13.30...13.50

compensator (LDA, ADA, ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 700
Contr.-rod trav.mm: 13.30...13.40

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 12.10...12.20
2nd pressure hPa : 435
C-rod trav.mm : 12.90...13.00
3rd pressure hPa : 410
C-rod trav.mm : 12.30...12.50

SWITCH-OVER POINT

Speed 1/min : 320 (340)

FUEL-DELIVERY CHARACTERISTICS

Charge press. hPa : -
Speed 1/min : 500
Det. quantity cm³/ : 100.0...102.0
1000H.: (98.0...104.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 19

Edition : 09.03.87

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 0 400 863 009

Injection pump

Pump designation : PES3A85D410/3RS2642

EP type number : 0 410 883 989

Governor

Governor design. : RSV325...1250A2C2168
-2L

Governor no. : 0 420 232 437

Customer-spec. information

Customer : KHD

Engine : F3L913

1st version kW : 45.0

Speed 1/min: 2500

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60
: (2.45...2.65)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 3- 2SD ang. spacing°CS: 0-120-240
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1250

Contr.-rod trav.mm: 10.90...11.00

Del.quantity cm3/ : 7.0...7.1

100H.: (6.8...7.3)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 7.9...8.1

Del.quantity cm3/ : 0.7...1.3

100H.: (0.5...1.5)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 4.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Del.quantity cm3/ : 70.5...71.5

1000H.: (68.5...73.5)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 47...55

Testing:

1st c-rod trav.mm : 9.90

Speed 1/min : 1290...1300

2nd c-rod trav.mm : 4.00

Speed 1/min : 1345...1375

3rd c-rod trav.mm : 4.00

Speed 1/min : 1365...1395

4th speed 1/min : 1520

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 18...26

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 7.5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 7.90...8.10

C-rod trav.mm : 2.00

Speed 1/min : 480...540

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1250

C-rod trav.mm : 10.90...11.00

3rd speed 1/min : 800

C-rod trav.mm : 11.30...11.40

4th speed 1/min : 1045

C-rod trav.mm : 11.00...11.20

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del.quantity cm³/

1000H.: 62.5...64.5

(60.0...67.0)

Remarks:

: DX 3.50

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 30

Edition : 09.03.87

Superceded :

Calibrating oil : ISO-4113

Combination no. : 0 400 863 012

Injection pump

Pump designation : PES3A85D410/3RS2731

EP type number : 0 410 883 988

Governor

Governor design. : RSV325...1250A2C2168
-3L

Governor no. : 0 420 232 475

Customer-spec. information

Customer : KHD

Engine : F3L913

1st version kW : 44.0

Speed 1/min: 2500

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60
: (2.45...2.65)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 2

SD ang. spacing°CS: 0-120-240

Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1250

Contr.-rod trav.mm: 9.90...10.00

Del.quantity cm3/ : 6.8...6.9

100H.: (6.6...7.1)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm3/ : 1.0...1.6

100H.: (0.8...1.8)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 4.50

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Del.quantity cm3/ : 68.5...69.5

1000H.: (66.5...71.5)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 42...50

Testing:

1st c-rod trav.mm : 8.90

Speed 1/min : 1290...1300

2nd c-rod trav.mm : 4.00

Speed 1/min : 1315...1345

3rd c-rod trav.mm : 4.00

Speed 1/min : 1335...1365

4th speed 1/min : 1500

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 13...21

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 5.40...5.60

C-rod trav.mm : 2.00

Speed 1/min : 465...525

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1250

C-rod trav.mm : 9.90...10.00

2nd speed 1/min : 500

C-rod trav.mm : 10.30...10.40

4th speed 1/min : 960

C-rod trav.mm : 10.10...10.30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del.quantity cm³/ : 58.0...60.0

1000H.: (55.5...62.5)

Remarks:

: TKS 2.60

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 3,0 D

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 863 013

Injection pump

Pump designation : PES3A90D410/3RS2740

EP type number : 0 410 893 006

Governor

Governor design. : RSV325...1150AOC2219

L

Governer no. : 0 420 232 466

Customer-spec. information

Customer : KHD

Engine : F3L913G

1st version kW : 36.0

Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60
: (2.45...2.65)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 3- 2

SD ang. spacing°CS: 0-120-240
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 9.10...9.20

Del.quantity cm3/ : 6.4...6.5

100H.: (6.2...6.7)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 375.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm3/ : 1.1...1.7

100H.: (0.9...1.9)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 3.25

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm3/ : 64.0...65.0
1000H.: (62.0...67.0)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 56...64

Testing:

1st c-rod trav.mm : 8.10

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4.00

Speed 1/min : 1120...1150

3rd c-rod trav.mm : 4.00

Speed 1/min : 1135...1165

4th speed 1/min : 1300

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 23...31

Setting point w/out aux. spring

Speed 1/min : 375

Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 375

C-rod trav.mm : 5.40...5.60

C-rod trav.mm : 2.00

Speed 1/min : 470...530

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050

C-rod trav.mm : 9.10...9.20

2nd speed 1/min : 350

C-rod trav.mm : 9.40...9.50

3rd speed 1/min : 600

C-rod trav.mm : 9.20...9.40

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 350

Del.quantity cm³/ : 45.0...47.0

1000H.: (42.5...49.5)

Speed 1/min : 600

Del.quantity cm³/ : 51.5...53.5

1000H.: (49.0...56.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 4,1 D 5

Edition : 09.05.87

Superceded : -

Calibrating oil : ISO-4113

Combination no. : 0 400 864 068

Injection pump

Pump designation : PES4A85D410/3RS2638

EP type number : 0 410 884 950

Governor

Governor design. : RSV325...900A8C602-3

Governor no. : 0 420 232 460

Customer-spec. information

Customer : KHD

Engine : BF4L913

1st version kW : 64.0

Speed 1/min: 1800

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60
: (2.45...2.65)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 3- 4- 2SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 850

Contr.-rod trav.mm: 13.50...13.60

Del.quantity cm3/ : 8.3...8.4

100H.: (8.1...8.6)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 8.4...8.6

Del.quantity cm3/ : 0.8...1.4

100H.: (0.6...1.6)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 3.50

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 850

Del.quantity cm3/ : 83.0...84.0

1000H.: (81.0...86.0)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 31...39

Testing:

1st c-rod trav.mm : 12.50

Speed 1/min : 890...990

2nd c-rod trav.mm : 4.00

Speed 1/min : 955...985

4th speed 1/min : 10⁷

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 12...20

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 8.5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 8.40...8.60

C-rod trav.mm : 2.00

Speed 1/min : 365...425

SET IDLE AUXILIARY SPRING

Contr.-rod trav.mm: 2.00

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 850

C-rod trav.mm : 13.50...13.60

2nd speed 1/min : 500

C-rod trav.mm : 13.50...13.70

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 31
Edition : 09.03.87Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 0 400 864 069

Injection pump
Pump designation : PES4A85D410/3RS2732
EP type number : 0 410 884 947
Governor
Governor design. : RSV325...1175A8C2163
-3L
Governor no. : 0 420 232 474Customer-spec. information
Customer : KHD

Engine : F4L913

1st version kW : 55.0
Speed 1/min: 2350

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60
: (2.45...2.65)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 3- 4- 2SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1175

Contr.-rod trav.mm: 9.80...9.90

Del.quantity cm3/ : 6.7...6.8

100H.: (6.5...7.0)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm3/ : 1.0...1.6

100H.: (0.8...1.8)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 4.25

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1175

Del.quantity cm3/ : 67.0...68.0

1000H.: (65.0...70.0)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 53...61

Testing:

1st c-rod trav.mm : 8.80

Speed 1/min : 1215...1225

2nd c-rod trav.mm : 4.00

Speed 1/min : 1235...1265

3rd c-rod trav.mm : 4.00

Speed 1/min : 1255...1285

4th speed 1/min : 1420

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 15...23

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 5.6

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 5.40...5.90

C-rod trav.mm : 2.00

Speed 1/min : 460...520

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1175

C-rod trav.mm : 9.80...9.90

2nd speed 1/min : 500

C-rod trav.mm : 10.30...10.40

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del.quantity cm³/ : 58.0...60.0

1000H.: (55.5...62.5)

Remarks:

: TKS 2.80

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 4
 Edition : 30.03.87
 Superceeded : 9.85
 Calibrating oil : ISO-4113

Combination no. : 0 400 866 111

Injection pump
 Pump designation : PES6A85D410/3RS2611
 EP type number : 0 410 886 902
 Governor
 Governor design. : RSV325...1200AOC2148
 Governer no. : 0 420 232 293

Customer-spec. information
 Customer : KHD

Engine : F6L913

1st version kW : 84.0
 Speed 1/min: 2400

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00X2.00X600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60
 : (2.45...2.65)

Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1200

Contr.-rod trav.mm: 11.30...11.40

Del.quantity cm3/ : 6.9...7.0

100H.: (6.7...7.2)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 8.4...8.6

Del.quantity cm3/ : 0.8...1.4

100H.: (0.6...1.6)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
 Notch setting x : 4.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Del.quantity cm3/ : 69.5...70.5

1000H.: (67.5...72.5)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 53...61

Testing:

1st c-rod trav.mm : 10.30

Speed 1/min : 1240...1250

2nd c-rod trav.mm : 4.00

Speed 1/min : 1315...1345

4th speed 1/min : 1425

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 28...36
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 8.5
Speed 1/min : 325
C-rod trav.mm : 8.40...8.60
C-rod trav.mm : 2.00
Speed 1/min : 450...510

SET IDLE AUXILIARY SPRING

Contr.-rod trav.mm: 2.00

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1200
C-rod trav.mm : 11.30...11.40
2nd speed 1/min : 500
C-rod trav.mm : 11.80...11.90
4th speed 1/min : 975
C-rod trav.mm : 11.60...11.90

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ : 63.5...65.5
1000H.: (61.0...68.0)

Remarks:

: DX

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 24

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 866 118

Injection pump

Pump designation : PES6A85D410/3RS2611

EP type number : 0 410 886 902

Governor

Governor design. : RSV325...1150A8C604L

Governor no. : 0 420 232 319

Customer-spec. information

Customer : KHD

Engine : F6L913

1st version kW : 78.0

Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-cil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60
: (2.45...2.65)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 10,20...,10,30

Del.quantity cm3/ : 6.0...6.1

100H.: (5.8...6.3)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 8.4...8.6

Del.quantity cm3/ : 1.0...1.6

100H.: (0.8...1.8)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 4.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm3/ : 60.5...61.5

1000H.: (58.5...63.5)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 49...57

Testing:

1st c-rod trav.mm : 9.20

Speed 1/min : 1190...1200

2nd c-rod trav.mm : 4.00

Speed 1/min : 1215...1245

3rd c-rod trav.mm : 4.00

Speed 1/min : 1240...1270

4th speed 1/min : 1400

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 13...21

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 8.0

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 8.40...8.60

C-rod trav.mm : 2.00

Speed 1/min : 440...500

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1150

C-rod trav.mm : 10.20...10.30

2nd speed 1/min : 500

C-rod trav.mm : 10.20...10.40

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500

Del.quantity cm³/ : 39.5...41.5

1000H.: (37.0...44.0)

Speed 1/min : 800

Del.quantity cm³/ : 48.0...50.0

1000H.: (45.5...52.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 6,1 A 6

Edition : 09.03.87

Superceded

Calibrating oil : ISO-4113

Combination no. : 0 400 866 119

Injection pump

Pump designation : PES6A85D410/3RS2532

EP type number : 0 410 886 909

Governor

Governor design. : RSV325...1150A8C673L

Governor no. : 0 420 232 329

Customer-spec. information

Customer : KHD

Engine : BF6L913

1st version kW : 112.0

Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
: (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing⁰CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1150

Contr.-rod trav.mm: 13.00...13.10

Del.quantity m3/: 8.0...8.1

100H.: (7.8...8.3)

Dispersion cm3/: 0.3

100H.: (0.4)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 7.9...8.1

Del.quantity cm3/: 1.1...1.7

100H.: (0.9...1.9)

Dispersion cm3/: 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 3.75

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150

Del.quantity cm3/: 80.5...81.5

1000H.: (78.5...83.5)

Dispersion cm3/: 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 47...55

Testing:

1st c-rod trav.mm : 12.00

Speed 1/min : 1190...1200

2nd c-rod trav.mm : 4.00

Speed 1/min : 1225...1255

3rd c-rod trav.mm : 4.00

Speed 1/min : 1265...1295

4th speed 1/min : 1435

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 12...20

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 6.2

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 6.10...6.30

C-rod trav.mm : 2.00

Speed 1/min : 560...590

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1150

C-rod trav.mm : 13.00...13.10

2nd speed 1/min : 500

C-rod trav.mm : 13.70...13.80

4th speed 1/min : 980

C-rod trav.mm : 13.30...13.50

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del.quantity cm³/ : 81.0...83.0

1000H.: (78.5...85.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 3,8 P 2
 Edition : 09.03.87
 Superceded : 9.85
 Calibrating oil : ISO-4113

Combination no. : 0 400 874 222

Injection pump
 Pump designation : PES4A90D410RS2294
 EP type number : 0 410 894 011
 Governor
 Governor design. : RSV750...1400AOC2032
 -1L
 Governer no. : 0 420 232 455

Customer-spec. information
 Customer : DAIMLER-BENZ

Engine : OM 314

1st version kW : 62.5
 Speed 1/min: 2800

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.15...2.25
 : (2.10...2.30)

Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 3- 4- 2

SD ang. spacing°CS: 0-90-180-270
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1345

Contr.-rod trav.mm: 10.50...10.60

Del.quantity cm³/ : 6.8...6.9

100H.: (6.6...7.1)

Dispersion cm³/ : 0.3

100H.: (0.1)

2nd speed 1/min: 750.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm³/ : 1.7...2.3

100H.: (1.5...2.5)

Dispersion cm³/ : 0.2

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1345

Del.quantity cm³/ : 68.0...69.0

1000H.: (66.0...71.0)

Dispersion cm³/ : 3.00

1000H.: (1.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 47...55

Testing:

1st c-rod trav.mm : 9.50

Speed 1/min : 1385...1395

2nd c-rod trav.mm : 4.00

Speed 1/min : 1420...1450

4th speed 1/min : 1500

C-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 26...34

Setting point w/out aux. spring

Speed 1/min : 750
Contr.-rod trav.mm: 6.0

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 750
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 765...795
Speed 1/min : 820
C-rod trav.mm max : 1.00

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 450
C-rod trav.mm : 12.20...12.40
2nd speed 1/min : 600
C-rod trav.mm : 10.50...10.70

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : EIC 3,9 C 1

Edition : 28.11.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 0 400 874 239

Injection pump

Pump designation : PES4A90D320RS2634

EP type number : 0 410 894 026

Governor

Governor design. : RSV300...1050A1C2153
-1R

Governer no. : 0 420 233 193

Customer-spec. information

Customer : EICHER

Engine : EDL4

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.20...2.30
: (2.15...2.35)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 2- 4- 3

SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1050

Contr.-rod trav.mm: 12.60...12.70

Del.quantity cm³/ : 8.1...8.2

100H.: (7.9...8.4)

Dispersion cm³/ : 0.2

100H.: (0.3)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 10.9...11.1

Del.quantity cm³/ : 4.1...4.6

100H.: (3.9...4.8)

Dispersion cm³/ : 0.2

100H.: (0.3)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 3.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1050

Del.quantity cm³/ : 81.0...82.0

1000H.: (79.0...84.0)

Dispersion cm³/ : 2.00

1000H.: (3.50)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 46...54

Testing:

1st c-rod trav.mm : 11.60

Speed 1/min : 1090...1100

2nd c-rod trav.mm : 4.00

Speed 1/min : 1105...1135

3rd c-rod trav.mm : 4.00

Speed 1/min : 1135...1165

4th speed 1/min : 1300

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 15...23

Setting point w/out aux. spring

Speed 1/min : 300

Contr.-rod trav.mm: 10.5

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 300

C-rod trav.mm : 10.90...11.10

C-rod trav.mm : 2.00

Speed 1/min : 420...480

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1050

C-rod trav.mm : 12.60...12.70

2nd speed 1/min : 500

C-rod trav.mm : 12.60...12.80

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500

Del.quantity cm³/ : 69.5...71.5

1000H.: (67.0...74.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 4.0 C

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 874 243

Injection pump

Pump designation : PES4A90D410RS2666-2L

EP type number : 0 410 894 033

Governor

Governor design. : RSV350...1200A2C1139
-2L

Governor no. : 0 420 232 471

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM364

1st version kW : 50.0

Speed 1/min: 2400

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.25...2.35
: (2.20...2.40)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1-3-4-2SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1200

Contr.-rod trav.mm: 9.40...9.50

Del.quantity cm3/ : 4.9...5.0

100H.: (4.7...5.2)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 8.1...8.7

Del.quantity cm3/ : 1.0...1.2

100H.: (0.8...1.4)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 5.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Del.quantity cm3/ : 49.0...50.0

1000H.: (47.0...52.0)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 45...53

Testing:

1st c-rod trav.mm : 8.40

Speed 1/min : 1240...1245

2nd c-rod trav.mm : 4.00

Speed 1/min : 1286...1299

3rd c-rod trav.mm : 4.00

Speed 1/min : 1325...1355

4th speed 1/min : 1530

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: -3

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 8.40

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 350

C-rod trav.mm : 8.30...8.50

C-rod trav.mm : 2.00

Speed 1/min : 530...590

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1200

C-rod trav.mm : 9.40...9.50

2nd speed 1/min : 800

C-rod trav.mm : 10.50...10.60

3rd speed 1/min : 950

C-rod trav.mm : 10.30...10.50

4th speed 1/min : 1050

C-rod trav.mm : 9.70...10.00

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800

Del.quantity cm³/ : 45.0...47.0

1000H.: (42.5...49.5)

Speed 1/min : 1000

Del.quantity cm³/ : 48.0...51.0

1000H.: (45.5...53.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 4.0 C 1

Edition : 09.03.87

Superceded :

Calibrating oil : ISO-4113

Combination no. : 0 400 874 244

Injection pump

Pump designation : PES4A90D410RS2666-2

EP type number : 0 410 894 033

Governor

Governor design. : RSV350...1200A2C1139
=3L

Governer no. : 0 420 232 472

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM364

1st version kW : 57.0

Speed 1/min: 2400

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter

x Wall thickness

x Length mm : 6.00x1.50x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.

per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.25...2.35

: (2.20...2.40)

Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 3- 4- 2

SD ang. spacing°CS: 0-90-180-270
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1200

Contr.-rod trav.mm: 10.50...10.60

Del.quantity cm3/ : 5.5...5.6

100H.: (5.3...5.8)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 8.1...8.9

Del.quantity cm3/ : 1.0...1.2

100H.: (0.8...1.4)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 4.75

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Del.quantity cm3/ : 55.0...56.0

1000H.: (53.0...58.0)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 54...62

Testing:

1st c-rod trav.mm : 9.50

Speed 1/min : 1240...1245

2nd c-rod trav.mm : 4.00

Speed 1/min : 1302...1315

3rd c-rod trav.mm : 4.00

Speed 1/min : 1335...1365

4th speed 1/min : 1450

C-rod trav.mm : 0.30...1.40
5th speed 1/min : 1240...1250
C-rod trav.mm : 9.50

LOWEST RATED SPEED I

Control-lever
position degrees: -3

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 350
C-rod trav.mm : 8.50...8.70
C-rod trav.mm : 2.00
Speed 1/min : 520...580

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1200
C-rod trav.mm : 10.50...10.60
2nd speed 1/min : 800
C-rod trav.mm : 12.00...12.10
3rd speed 1/min : 950
C-rod trav.mm : 11.70...11.90
4th speed 1/min : 1050
C-rod trav.mm : 11.00...11.30

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 800
Del.quantity cm³/ : 56.0...58.0
1000H.: (53.5...60.5)
Speed 1/min : 1050
Del.quantity cm³/ : 56.0...58.0
1000H.: (53.5...60.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 9,6 K 3
 Edition : 09.03.87

Superceded : -
 Calibrating oil : ISO-4113

Combination no. : 0 400 876 197

Injection pump
 Pump designation : PES6A95D410RS2416
 EP type number : 0 410 896 961
 Governor
 Governor design. : RSV300...1325A8C616L
 Governer no. : 0 420 232 332

Customer-spec. information
 Customer : KHD

Engine : F6L413FR

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
 : (1.85...2.05)

Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1315

Contr.-rod trav.mm: 8.30...8.40

Del.quantity cm3/ : 7.6...7.7

100H.: (7.4...7.9)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm3/ : 1.0...1.6

100H.: (0.7...1.8)

Dispersion cm3/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

Governor-spring reload

Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1315

Del.quantity cm3/ : 76.0...77.0

1000H.: (74.0...79.0)

Dispersion cm3/ : 3.00

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 65...73

Testing:

1st c-rod trav.mm : 7.30

Speed 1/min : 1355...1365

2nd c-rod trav.mm : 4.00

Speed 1/min : 1375...1405

3rd c-rod trav.mm : 4.00

Speed 1/min : 1390...1420

4th speed 1/min : 1550

C-rod trav.mm : 0.00...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30
Setting point w/out aux. spring
Speed 1/min : 300
Contr.-rod trav.mm: 5.5
Speed 1/min : 300
C-rod trav.mm : 5.90...6.10
C-rod trav.mm : 2.00
Speed 1/min : 550...610

TORQUE CONTROL

Torque-control curve - 1st version
1st speed 1/min : 1315
C-rod trav.mm : 8.30...8.40
2nd speed 1/min : 500
C-rod trav.mm : 9.20...9.30
3rd speed 1/min : 850
C-rod trav.mm : 8.60...8.90

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 9,6 K 2

Edition : 30.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 400 876 199

Injection pump

Pump designation : PES6A95D410RS?416

EP type number : 0 410 896 961

Governor

Governor design. : RSV300...750A7(616L

Governer no. : 0 420 232 322

Customer-spec. information

Customer : KHD

Engine : F6L413FR

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
: (1.95...2.05)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 750

Contr.-rod trav.mm: 9.20...9.30

Del.quantity cm3/ : 7.6...7.7

100H.: (7.4...7.9)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 6.4...6.6

Del.quantity cm3/ : 1.3...1.9

100H.: (1.0...2.1)

Dispersion cm3/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 750

Del.quantity cm3/ : 76.0...77.0

1000H.: (74.0...79.0)

Dispersion cm3/ : 3.00

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 42...50

Testing:

1st c-rod trav.mm : 8.20

Speed 1/min : 780...790

2nd c-rod trav.mm : 4.00

Speed 1/min : 790...820

3rd c-rod trav.mm : 4.00

4th speed 1/min : 930

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 19...27

Setting point w/out aux. spring

Speed 1/min : 200

Contr.-rod trav.mm: 6.0

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 300
C-rod trav.mm : 6.40...6.60
C-rod trav.mm : 2.00
Speed 1/min : 470...530

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 750
C-rod trav.mm : 9.20...9.30
2nd speed 1/min : 600
C-rod trav.mm : 9.80...9.90
3rd speed 1/min : 350
C-rod trav.mm : 9.90...10.30

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5/7 Q 14
 Edition : 17.12.86
 Superceded : 10.85
 Calibrating oil : ISO-4113

Combination no. : 0 400 876 255

Injection pump
 Pump designation : PES6A90D410RS2293
 EP type number : 0 410 896 031
 Governor
 Governor design. : RSV350...1300A0C783L
 Governer no. : 0 420 232 409

Customer-spec. information
 Customer : DAIMLER-BENZ

Engine : OM 352 A

1st version kW : 110.3
 Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.15...2.25
 : (2.10...2.30)
 Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1300

Contr.-rod trav.mm: 11.40...11.50

Del.quantity cm³/ : 7.5...7.6

100H.: (7.3...7.8)

Dispersion cm³/ : 0.3

100H.: (0.4)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 7.1...7.7

Del.quantity cm³/ : 1.0...1.2

100H.: (0.8...1.4)

Dispersion cm³/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 17min: 800

Cont.-rod travelmm: 0.30...1.00

Governor-spring reload

Notch setting x : ?

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1300

Charge press. hPa : 700

Del.quantity cm³/ : 75.5...76.5

1000H.: (73.5...78.5)

Dispersion cm³/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 61...69

Testing:

1st c-rod trav.mm : 10.40

Speed 1/min : 1340...1345

2nd c-rod trav.mm : 4.00

Speed 1/min : 1393...1406

3rd c-rod trav.mm : 4.00

Speed 1/min : 1430...1460

4th speed 1/min : 1600

C-rod trav.mm : 0.30...1.70
5th speed 1/min : 1345...1355
C-rod trav.mm : 10.40

LOWEST RATED SPEED I

Control-lever
position degrees: -3
Setting point w/out aux. spring
Speed 1/min : 350
Contr.-rod trav.mm: 7.40

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.00
Speed 1/min : 350
C-rod trav.mm : 7.30...7.50
C-rod trav.mm : 2.00
Speed 1/min : 470...530

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1300
C-rod trav.mm : 11.40...11.50
3rd speed 1/min : 800
C-rod trav.mm : 11.50...11.60
4th speed 1/min : 1050
C-rod trav.mm : 11.40...11.60

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 700
Contr.-rod trav.mm: 11.50...11.60

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 10.70...10.80
2nd pressure hPa : 390
C-rod trav.mm : 11.40...11.50
3rd pressure hPa : 275
C-rod trav.mm : 10.90...11.10

FUEL-DELIVERY CHARACTERISTICS

1st version
Charge press. hPa : 700
Speed 1/min : 500
Del.quantity cm³/ 1000H. : 62.0...64.0
1000H. : (59.5...66.5)
Dispersion cm³/ 1000H. : (5.50)
Charge press. hPa : 700
Speed 1/min : 800
Del.quantity cm³/ 1000H. : 67.0...69.0
1000H. : (64.5...71.5)

Dispersion cm³/ 1000H. : -
1000H. : 5.50
Charge press. hPa : -
Speed 1/min : 500
Del.quantity cm³/ 1000H. : 50.0...52.0
1000H. : (47.5...54.5)
Dispersion cm³/ 1000H. : -
1000H. : 5.50

Remarks:
Hydraulic latching of starting delivery.

Latching at 0.4 bar ... 0.5 bar.

Unlatching at 0.15 bar...0.25 bar.

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5,7 Q 7
 Edition : 09.03.87
 Superceeded : 8.85
 Calibrating oil : ISO-4113

Combination no. : 0 400 876 257

Injection pump
 Pump designation : PES6A90D410RS2293Z
 EP type number : 0 410 896 037
 Governor
 Governor design. : RSV350/1300AOC1101-2
 L
 Governer no. : 0 420 232 411

Customer-spec. information
 Customer : DAIMLER-BENZ

Engine : OM 352

1st version kW : 69.9
 Speed 1/min: 2600

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
 assembly : 0 681 343 009

Opening
 pressure, bar : 172...175

Test inj. tubing : 1 680 750 003

Outside diameter
 x Wall thickness
 x Length mm : 6.00x2.00x500

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.15...2.25
 : (2.10...2.30)

Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1300

Contr.-rod trav.mm: 8.20...8.30

Del.quantity cm³/ : 4.4...4.5

100H.: (4.2...4.7)

Dispersion cm³/ : 0.3

100H.: (0.4)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 6.6...7.2

Del.quantity cm³/ : 1.0...1.2

100H.: (0.8...1.4)

Dispersion cm³/ : 0.2

100H.: (-)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
 Notch setting x : 4.75

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1300

Del.quantity cm³/ : 44.5...45.5

1000H.: (42.5...47.5)

Dispersion cm³/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever
 position degrees: 59...67

Testing:

1st c-rod trav.mm : 7.20

Speed 1/min : 1340...1345

2nd c-rod trav.mm : 4.00

Speed 1/min : 1364...1377

3rd c-rod trav.mm : 4.00

Speed 1/min : 1390...1420

4th speed 1/min : 1500

C-rod trav.mm : 0.30...1.40
5th speed 1/min : 1345...1355
C-rod trav.mm : 7.20

LOWEST RATED SPEED I

Control-lever
position degrees: -3
Setting point w/out aux. spring
Speed 1/min : 350
Contr.-rod trav.mm: 6.70

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 350
C-rod trav.mm : 6.60...6.80
C-rod trav.mm : 2.00
Speed 1/min : 450...510

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1300
C-rod trav.mm : 8.20...8.30
2nd speed 1/min : 500
C-rod trav.mm : 9.10...9.20
3rd speed 1/min : 900
C-rod trav.mm : 8.90...9.10
4th speed 1/min : 1075
C-rod trav.mm : 8.30...8.60

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500
Del.quantity cm³/ 1000H.: 39.0...42.0
Del.quantity cm³/ 1000H.: (36.5...44.5)
Speed 1/min : 900
Del.quantity cm³/ 1000H.: 48.0...50.0
Del.quantity cm³/ 1000H.: (45.5...52.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5,7 Q 17
 Edition : 10.12.86
 Superceeded : -
 Calibrating oil : ISO-4113
 Combination no. : 0 400 876 259
 Injection pump
 Pump designation : PES6A90D410RS2293
 EP type number : 0 410 896 031
 Governor
 Governor design. : RSV350...1400ADC1080
 L
 Governer no. : 0 420 232 408
 Customer-spec. information
 Customer : DAIMLER-BENZ

TEST BENCH REQUIREMENTS

Calibrating-oil inlet temp. °C : 38...42
 Overflow valve : 1 417 413 000
 Inlet press., bar : 1.00
 Calibrating nozzle-holder assembly : 0 681 343 009
 Opening pressure, bar : 172...175
 Test inj. tubing : 1 680 750 014
 Outside diameter x Wall thickness x Length mm : 6.00x2.00x600
 (A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.15...2.25
 : (2.10...2.30)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/min: 1400
 Contr.-rod trav.mm: 9.70...9.80
 Del.quantity cm3/ : 6.3...6.4
 100H.: (6.1...6.6)
 Dispersion cm3/ : 0.3
 100H.: (0.4)
 2nd speed 1/min: 350.0
 Contr.-rod trav. m: 7.0...7.6
 Del.quantity cm3/ : 1.0...1.2
 100H.: (0.8...1.4)
 Dispersion cm3/ : 0.2
 100H.: (-)

SLEEVE POSITION

Control-lever position
 Degree: -3
 Speed 1/min: 800
 Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
 Notch setting x : 3.50

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version
 Speed 1/min: 1400
 Del.quantity cm3/ : 63.0...64.0
 1000H.: (61.0...66.0)
 Dispersion cm3/ : 3.00
 1000H.: (4.50)

HIGHEST RATED SPEED

1st version
 Control-lever
 position degrees: 64...72

Testing:

1st c-rod trav.mm :	8.70
Speed 1/min :	1440...1445
2nd c-rod trav.mm :	4.00
Speed 1/min :	1473...1486
3rd c-rod trav.mm :	4.00
Speed 1/min :	1510...1540
4th speed 1/min :	1570
C-rod trav.mm :	0.30...1.40
5th speed 1/min :	1445...1455
C-rod trav.mm :	8.70

LOWEST RATED SPEED I

Control-lever
position degrees: -3
Setting point w/out aux. spring
Speed 1/min : 350
Contr.-rod trav.mm: 7.50

Testing:
Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 350
C-rod trav.mm : 7.40...7.60
C-rod trav.mm : 2.00
Speed 1/min : 510...570

TORQUE CONTROL
Torque-control curve - 1st version
1st speed 1/min : 1400
C-rod trav.mm : 9.70...9.80
2nd speed 1/min : 600
C-rod trav.mm : 9.80...10.00

FUEL-DELIVERY CHARACTERISTICS
Speed 1/min : 600
Del.quantity cm³/ : 51.0...53.0
1000H.: (49.0...55.0)
Speed 1/min : 850
Del.quantity cm³/ : 56.0...58.0
1000H.: (53.5...60.5)

Remarks:

M02

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5.7 S 8

Edition : 09.03.87

Superceded : 1.85

Calibrating oil : ISO-4113

Combination no. : 0 400 876 265

Injection pump

Pump designation : PES6A90D410RS2293

EP type number : 0 410 896 031

Governor

Governor design. : RSV350...1400A0C2002

Governor no. : 0 420 232 417

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM 352

1st version kW : 95.6

Speed 1/min: 2800

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.15...2.25
: (2.10...2.30)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1380

Contr.-rod trav.mm: 10.00...10.10

Del.quantity cm3/ : 6.1...6.2

100H.: (5.9...6.4)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 7.1...7.3

Del.quantity cm3/ : 0.9...1.5

100H.: (0.7...1.7)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 5.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1380

Del.quantity cm3/ : 61.5...62.5

1000H.: (59.5...64.5)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 64...72

Testing:

1st c-rod trav.mm : 9.00

Speed 1/min : 1420...1430

2nd c-rod trav.mm : 4.00

Speed 1/min : 1485...1515

4th speed 1/min : 1600

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 31...39

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 7.2

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 350

C-rod trav.mm : 7.10...7.30

C-rod trav.mm : 2.00

Speed 1/min : 560...620

Speed 1/min : 700

C-rod trav.mm max : 1.00

SET IDLE AUXILIARY SPRING

Contr.-rod trav.mm: 2.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 9,6 K 4

Edition : 09.03.87

Superceded :

Calibrating oil : ISO-4113

Combination no. : 0 400 876 279

Injection pump

Pump designation : PES6A95D410RS2416

EP type number : 0 410 896 961

Governor

Governor design. : RSV325...1100A8C2040

L
Governer no. : 0 420 232 288

Customer-spec. information

Customer : KHD

Engine : BF6L413FRC

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.75...1.85

: (1.70...1.90)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10.60...10.70

Del.quantity cm³/ : 11.1...11.3

100H.: (10.9...11.5)

Dispersion cm³/ : 0.3

100H.: (0.6)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 5.4...5.6

Del.quantity cm³/ : 0.9...1.5

100H.: (0.6...1.7)

Dispersion cm³/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 500

Del.quantity cm³/ : 111.5...113.5

100H.: (109.5...115.5)

Dispersion cm³/ : 3.00

100H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 45...53

Testing:

1st c-rod trav.mm : 9.60

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 3.70

Speed 1/min : 1165...1195

4th speed 1/min : 1330

c-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 12...20

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 5.5

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.00
Speed 1/min : 325
C-rod trav.mm : 5.40...5.60
C-rod trav.mm : 2.00
Speed 1/min : 440...500
Speed 1/min : 600
C-rod trav.mm max : 1.00

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10.60...10.70
2nd speed 1/min : 550
C-rod trav.mm : 10.60...10.80
3rd speed 1/min : 375
C-rod trav.mm : 11.80...12.40

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 500
Contr.-rod trav.mm: 10.60...10.70

Measurement

Speed 1/min : 500

1st pressure hPa : 355
C-rod trav.mm : 10.30...10.40
2nd pressure hPa : 245
C-rod trav.mm : 9.60...9.90
3rd pressure hPa : -
C-rod trav.mm : 9.50...9.60

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 500
Speed 1/min : 900
Del.quantity cm³/ 1000H.: 114.0...117.0
(112.0...119.0)
Charge press. hPa : -
Speed 1/min : 500
Del.quantity cm³/ 1000H.: 77.5...80.5
(75.5...82.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 5,7 V 5

Edition : 09.03.87

Superceded : 8.81

Calibrating oil : ISO-4113

Combination no. : 0 400 876 294

Injection pump

Pump designation : PES6A90D410RS2596

EP type number : 0 410 896 073

Governor

Governor design. : RSV350...1250AOB1142

Governor no. : 0 420 232 248

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM352A

1st version kW : 110.0

Speed 1/min: 2500

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.00...2.10
: (1.95...2.15)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1250

Contr.-rod trav.mm: 12.30...12.40

Del.quantity cm³/ : 7.6...7.7

100H.: (7.4...7.9)

Dispersion cm³/ : 0.3

100H.: (0.4)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 9.2...9.4

Del.quantity cm³/ : 2.0...2.7

100H.: (1.8...2.9)

Dispersion cm³/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...1.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1250

Charge press. hPa : 700

Del.quantity cm³/ : 76.0...77.0

1000H.: (74.0...79.0)

Dispersion cm³/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 54...62

Testing:

1st c-rod trav.mm : 11.30

Speed 1/min : 1290...1300

2nd c-rod trav.mm : 4.00

Speed 1/min : 1345...1375

3rd c-rod trav.mm : 4.00

Speed 1/min : 1390...1420

4th speed 1/min : 1525

c-rod trav.mm : 0.30...1.70

LOWEST RATED SPEED I

Control-lever

position degrees: 20...28
Setting point w/out aux. spring
Speed 1/min : 350
Contr.-rod trav.mm: 6.7
Speed 1/min : 350
C-rod trav.mm : 9.20...9.40
C-rod trav.mm : 2.00
Speed 1/min : 550...610

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1250
C-rod trav.mm : 12.30...12.40
2nd speed 1/min : 500
C-rod trav.mm : 13.40...13.50
3rd speed 1/min : 980
C-rod trav.mm : 12.80...13.00

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 700
Contr.-rod trav.mm: 13.40...13.50

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 11.60...11.70
2nd pressure hPa : 365
C-rod trav.mm : 13.10...13.20
3rd pressure hPa : 190
C-rod trav.mm : 12.40...12.60

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 700
Speed 1/min : 750
Del. quantity cm³/
1000H.: 79.0...82.0
(77.0...84.0)
Charge press. hPa : -
Speed 1/min : 500
Del. quantity cm³/
1000H.: 51.5...53.5
(49.5...55.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : SCL 7,4 C 1

Edition : 17.12.86

Superceded

Calibrating oil : ISO-4113

Combination no. : 0 400 876 324

Injection pump

Pump designation : PES6A95D410RS2692

EP type number : 0 410 896 915

Governor

Governor design. : RSV325...1100A1C2111

Governer no. : 0 420 232 383

Customer-spec. information

Customer : SCHLUETER

Engine : SDM 108 W6

1st version kW : 77.0

Speed 1/min: 2200

TEST BENCH REQUIREMENTSCalibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----**START OF DELIVERY**

Test pressure, bar: 25...27

Prestroke mm : 2.70...2.80
: (2.65...2.85)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)**BASIC SETTING**

1st speed 1/mi: 1100

Contr.-rod trav.mm: 11.60...11.70

Del.quantity cm3/ : 10.8...11.0

100H.: (10.6...11.2)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 7.4...7.6

Del.quantity cm3/ : 1.0...1.6

100H.: (0.7...1.8)

Dispersion cm3/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 4.00**FULL-LOAD DELIV. AT FULL-LOAD STOP**

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 108.5...110.5

100H.: (106.5...112.5)

Dispersion cm3/ : 3.50

100H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 52...60

Testing:

1st c-rod trav.mm : 10.60

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4.00

Speed 1/min : 1170...1200

3rd c-rod trav.mm : 4.00

Speed 1/min : 1190...1220

4th speed 1/min : 1360

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever

position degrees: 18...26

Setting point w/out aux. spring

Speed 1/min : 325

Contr.-rod trav.mm: 7.0

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 325

C-rod trav.mm : 7.40...7.60

C-rod trav.mm : 2.00

Speed 1/min : 510...570

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 11.60...11.70

2nd speed 1/min : 500

C-rod trav.mm : 12.90...13.00

3rd speed 1/min : 910

C-rod trav.mm : 12.20...12.40

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 500

Del.quantity cm³/ : 102.0...105.0

1000H.: (99.5...107.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 1 G 16

Edition : 09.03.87

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 0 400 876 326

Injection pump

Pump designation : PES6A85D410RS2591

EP type number : 0 410 886 903

Governor

Governor design. : RSV325...1150A8C2194

Governer no. : 0 420 234 435

Customer-spec. information

Customer : KHD

Engine : BF6L913

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 613 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.50...2.60

: (2.45...2.65)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1200

Contr.-rod trav.mm: 12.40...12.50

Del.quantity cm3/ : 8.4...8.5

100H.: (8.2...8.7)

Dispersion cm3/ : 0.3

100H.: (0.4)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 7.9...8.1

Del.quantity cm3/ : 1.0...1.6

100H.: (0.8...1.8)

Dispersion cm3/ : 0.2

100H.: (0.4)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 6.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Del.quantity cm3/ : 84.0...85.0

1000H.: (82.0...87.0)

Dispersion cm3/ : 3.00

1000H.: (4.50)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 57...65

Testing:

1st c-rod trav.mm : 11.40

Speed 1/min : 1240...1250

2nd c-rod trav.mm : 4.00

Speed 1/min : 1295...1325

3rd c-rod trav.mm : 4.00

Speed 1/min : 1340...1370

4th speed 1/min : 1515

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 17...25
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 7.5

Testing:
Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 7.40...7.60
C-rod trav.mm : 2.00
Speed 1/min : 630...690

TORQUE CONTROL
Torque-control curve - 1st version
1st speed 1/min : 1200
C-rod trav.mm : 12.40...12.50
2nd speed 1/min : 500
C-rod trav.mm : 13.50...13.60
3rd speed 1/min : 925
C-rod trav.mm : 12.90...13.10

Remarks:
: DX 7.10

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 6,1 E 2

Edition : 09.03.87

Superceeded : 10.85

Calibrating oil : ISO-4113

Combination no. : 0 400 876 330

Injection pump

Pump designation : PES6A95D410RS2471

EP type number : 0 410 896 952

Governor

Governor design. : RSV325...1400A2C2205

Governor no. : 0 420 232 445

Customer-spec. information

Customer : KHD

Engine : PPM BF6L913C

1st version kW : 125.0

Speed 1/min: 2800

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 014

Outside diameter
x Wall thickness
x Length mm : 6.00X2.00X600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.90...2.00
: (1.85...2.05)Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 1400

Contr.-rod trav.mm: 10.90...11.00

Del.quantity cm3/ : 8.8...9.0

100H.: (8.6...9.2)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 325.0

Contr.-rod trav. m: 7.5...7.7

Del.quantity cm3/ : 1.0...1.6

100H.: (0.7...1.8)

Dispersion cm3/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload
Notch setting x : 4.00

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1400

Charge press. hPa : 700

Del.quantity cm3/ : 88.0...90.0

1000H.: (86.0...92.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 54...62

Testing:

1st c-rod trav.mm : 9.90

Speed 1/min : 1440...1450

2nd c-rod trav.mm : 4.00

Speed 1/min : 1490...1520

3rd c-rod trav.mm : 4.00

Speed 1/min : 1545...1575

4th speed 1/min : 1675
C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 18...26
Setting point w/out aux. spring
Speed 1/min : 325
Contr.-rod trav.mm: 7.1

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 325
C-rod trav.mm : 7.50...7.70
C-rod trav.mm : 2.00
Speed 1/min : 625...685

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1400
C-rod trav.mm : 10.90...11.00
2nd speed 1/min : 500
C-rod trav.mm : 10.90...11.10

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 650
Pressure hPa : 700
Contr.-rod trav.mm: 10.90...11.10

Measurement

Speed 1/min : 650

1st pressure hPa : -
C-rod trav.mm : 10.20...10.30
2nd pressure hPa : 220
C-rod trav.mm : 10.70...10.80
3rd pressure hPa : 180
C-rod trav.mm : 10.50...10.60

FUEL-DELIVERY CHARACTERISTICS

Charge press. hPa : 700
Speed 1/min : 850
Del.quantity cm³/
1000H.: 79.5...82.5
Charge press. hPa : -
Speed 1/min : 650
Del.quantity cm³/
1000H.: 64.0...66.0
 (62.0...68.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 6,0 C 4

Edition : 28.11.86

Superceded :

Calibrating oil : ISO-4113

Combination no. : 0 400 876 334

Injection pump

Pump designation : PES6A90D410RS2710-1

EP type number : 0 410 896 084

Governor

Governor design. : RSV350...750AOC2006-
3L

Governor no. : 0 420 232 454

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM 366

1st version kW : 54.0

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x600(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.25...2.35
: (2.20...2.40)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 12.20...12.30

Del.quantity cm3/ : 6.4...6.5

100H.: (6.2...6.7)

Dispersion cm3/ : 0.3

100H.: (0.5)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 8.2...8.4

Del.quantity cm3/ : 0.6...1.2

100H.: (0.4...1.4)

Dispersion cm3/ : 0.2

100H.: (0.4)

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm3/ : 64.0...65.0

1000H.: (62.0...67.0)

Dispersion cm3/ : 3.00

1000H.: (5.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 78...86

Testing:

1st c-rod trav.mm : 11.20

Speed 1/min : 750...755

2nd c-rod trav.mm : 4.00

Speed 1/min : 775...788

4th speed 1/min : 900

C-rod trav.mm : 0.30...1.40

LOWEST RATED SPEED I

Control-lever
position degrees: 66...74

Setting point w/out aux. spring

Speed 1/min : 350

Contr.-rod trav.mm: 8.3

Testing:

Speed 1/min : 100

C-rod trav.mm min : 19.50

Speed 1/min : 350
C-rod trav.mm : 8.20...8.40
C-rod trav.mm : 2.00
Speed 1/min : 380...420

SET IDLE AUXILIARY SPRING
Contr.-rod trav.mm: 2.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : HAN 10,8 FS

Edition : 17.12.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 401 076 007

Injection pump

Pump designation : PE6A100D320RS3030-1

EP type number : 0 411 006 019

Governor

Governor design. : RSV350...1100A8C2217

R

Governer no. : 0 420 232 462

Customer-spec. information

Customer : HANOMAG

Engine : D964T

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 000

Inlet press., bar : 1.00

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 003

Outside diameter
x Wall thickness
x Length mm : 6.00x2.00x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 1.80...1.90

: (1.75...1.95)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 8.50...9.50

Difference ° CS : 5.50...6.50

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10.20...10.30

Del.quantity cm3/ : 12.6...12.8

100H.: (12.4...13.0)

Dispersion cm3/ : 0.3

100H.: (0.6)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 6.6...6.8

Del.quantity cm3/ : 1.5...2.1

100H.: (1.2...2.3)

Dispersion cm3/ : 0.3

100H.: (0.5)

SLEEVE POSITION

Control-lever position

Degree: -3

Speed 1/min: 800

Cont.-rod travelmm: 0.30...0.70

Governor-spring reload

Notch setting x : 5.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 126.0...128.0

1000H.: (124.0...130.0)

Dispersion cm3/ : 3.50

1000H.: (6.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 53...61

Testing:

1st c-rod trav.mm : 9.20

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4.00

Speed 1/min : 1175...1205
3rd c-rod trav.mm : 4.00
Speed 1/min : 1210...1240

LOWEST RATED SPEED I

Control-lever

position degrees: 22...30
Setting point w/out aux. spring
Speed 1/min : 350
Contr.-rod trav.mm: 6.2

Testing:

Speed 1/min : 100
C-rod trav.mm min : 19.50
Speed 1/min : 350
C-rod trav.mm : 6.60...6.80
C-rod trav.mm : 2.00
Speed 1/min : 500...560

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100
C-rod trav.mm : 10.20...10.30
2nd speed 1/min : 500
C-rod trav.mm : 11.10...11.20
4th speed 1/min : 940
C-rod trav.mm : 10.50...10.70

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ 1000H.: 140.0...143.0
1000H.: (137.5...145.5)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : DEE 6,6 B

Edition : 7.86

Superceeded : -

Calibrating oil : ISO-4113

Combination no. : 0 401 276 017

Injection pump

Pump designation : PES6A100D410RS3020

Governor

Governor design. : RSV400...1100A2B660D
L

Customer-spec. information

Customer : JOHN DEERE

Engine : 6404 A

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Inlet press., bar : 1.5

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 9 680 750 014

Outside diameter

x Wall thickness

x Length mm : 6,00x2,00x600

(A) Injection pump setting values

Insp. values in parentheses

Set constant delivery quant.

per values ----

START OF DELIVERY

Prestroke mm : 2,0...2,1

: (1,95...2,15)

Cam sequence : 1-5-3-6-2-4

SD ang. spacing °CS: 0-60-120-180-240-300

Tolerance + - : 0,5 (0,75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 10,0

Del.quantity cm3/ : 10,4...10,6

Dispersion cm3/ : 0,30

2nd speed 1/min: 400

Contr.-rod trav. m: 6,3

Del.quantity cm3/ : 1,2...1,6

Dispersion cm3/ : 0,30

SLEEVE POSITION

Control-lever position

Degree: LOSE

Speed 1/min: 800

Cont.-rod travelmm: 0,7...1,0

Governor-spring reload

Notch setting x : -

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 104,0...106,0
1000H.: (102,0...108,0)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 40...48

Testing:

1st c-rod trav.mm : 9,00

Speed 1/min : 1145...1155

2nd c-rod trav.mm : 4,8

Speed 1/min : 1200

4th speed 1/min : 1350

C-rod trav.mm : 0,3...1,7

LOWEST RATED SPEED I

Control-lever

position degrees: 17...25

Setting point w/out aux. spring

Speed 1/min : 400

Contr.-rod trav.mm: 5,8

Speed 1/min : 480

C-rod trav.mm : 2,0...4,0

C-rod trav.mm : 6,3

Speed 1/min : 400

Speed 1/min : 600

C-rod trav.mm max : 1,0

TORQUE CONTROL

Torque-control curve - 1st version

1st speed 1/min : 1100

C-rod trav.mm : 10,0
2nd speed 1/min : 750
C-rod trav.mm : 10,5

compensator (LDA, ADA, ALDA)

1st version

Setting

Speed 1/min : 550
Pressure hPa : 900
Contr.-rod trav.mm: -

Measurement

Speed 1/min : 550

1st pressure hPa : 490
C-rod trav.mm : -

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750
Del.quantity cm³/ : 113,0...116,0
1000H.: (110,0...119,0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : GUS 31_8 A3

Edition : 19.12.86

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 401 830 709

Injection pump

Pump designation : PE12P130A120RS3094-2

EP type number : 0 411 830 705

Governor

Governor design. : RQV350...900PA749

Governor no. : 0 421 813 480

Customer-spec. information

Customer : GUASCOR

Engine : E318

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 1 688 901 019Opening
pressure, bar : 207...210Perforated-plate
diameter mm : 0,8

Test inj. tubing : 1 680 750 074

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x1000(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 3.60...3.70
: (3.55...3.75)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 12- 9- 4- 5- 8
- 11- 2- 3- 10- 7- 6SD ang. spacing°CS: 0-45-60-105-120-165-
180-225-240-285-300-
345

Tolerance + - ° : 0.50 (0.75)

BASIC SETTING

1st speed 1/mi: 900

Contr.-rod trav.mm: 8.50...8.60

Del.quantity cm³/ : 18.8...19.1

100H.: (18.4...19.4)

Dispersion cm³/ : 0.6

100H.: (1.0)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 4.0...4.2

Del.quantity cm³/ : 2.1...2.7

100H.: (1.7...3.1)

Dispersion cm³/ : 1.0

100H.: (1.4)

(B) Setting of injection pump with
externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

Sleeve travel mm: 1.50...1.80

2nd speed 1/min: 750

Sleeve travel mm: 5.40...5.60

3rd speed 1/min: 900

Sleeve travel mm: 7.60...7.80

SLEEVE POSITION

Speed 1/min: 940

Cont.-rod travel mm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 900

Del.quantity cm³/ : 188.0...191.0

100H.: (184.5...194.5)

Dispersion cm³/ : 6.00

100H.: (10.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 61...69

Testing:

1st c-rod trav.mm : 7.50
Speed 1/min : 940...950
2nd c-rod trav.mm : 4.00
Speed 1/min : 970...1000
4th speed 1/min : 1100
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 6...14

Testing:

Speed 1/min : 100
C-rod trav.mm min : 5.60
Speed 1/min : 350
C-rod trav.mm : 4.00...4.20

CONSTANT REGULATION

Speed 1/min : 355...455

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

- 4- 11- 10- 2- 6- 7

Note inst. in remarks column

Test sheet : MB 19,1 I
 Edition : 09.03.87
 Superceeded : 7.83
 Calibrating oil : ISO-4113

Combination no. : 0 401 840 050

Injection pump
 Pump designation : PE12P110A320LS830
 EP type number : 0 411 810 030
 Governor
 Governor design. : RQ1150PA310R
 Governer no. : 0 421 801 071

Customer-spec. information
 Customer : DAIMLER-BENZ

Engine : OM404A

1st version kW : 386.0
 Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
 inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Overflow
 quantity min. 1/h: 150...170

Calibrating nozzle-holder
 assembly : 0 581 343 009

Opening
 pressure, bar : 172...175

Outside diameter
 x Wall thickness
 x Length mm : 6.00x1.50x600

(A) Injection pump setting values
 Insp. values in parentheses
 Set constant delivery quant.
 per values -----

START OF DELIVERY

Prestroke mm : 3.20...3.30
 : (3.15...3.35)
 Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 12- 1- 5- 9- 8- 3

SD ang. spacing°CS: 0-45-60-105-120-165-
 180-225-240-285-300-
 345

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 12

BASIC SETTING

1st speed 1/mi: 1100

Contr.-rod trav.mm: 12.95...13.00

Del.quantity cm3/ : 14.0...14.2

100H.: (13.7...14.4)

Dispersion cm3/ : 0.4

100H.: (0.7)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 7.4...7.6

Del.quantity cm3/ : 1.4...2.0

100H.: (1.1...2.2)

Dispersion cm3/ : 0.4

100H.: (-)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 1080

Sleeve travel mm: 2.20...2.40

2nd speed 1/min: 1160

Sleeve travel mm: 5.70...5.90

3rd speed 1/min: 1240

Sleeve travel mm: 8.50...8.70

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Del.quantity cm3/ : 140.0...142.0

1000H.: (137.5...144.5)

Dispersion cm3/ : 4.00

1000H.: (7.50)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 27...35

Testing:

1st c-rod trav.mm : 11.90

Speed 1/min : 1160...1165

2nd c-rod trav.mm : 5.90
Speed 1/min : 1205...1215
4th speed 1/min : 1300
C-rod trav.mm : 0.00...1.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 19,1 D 2

Edition : 09.03.87

Superceeded :

Calibrating oil : ISO-4113

Combination no. : 0 401 840 059

Injection pump

Pump designation : PE12P110A320LS830

EP type number : 0 411 810 036

Governor

Governor design. : RQ105OPA374

Governer no. : 0 421 801 054

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM404A

1st version kw : 336.0

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 3.20...3.30
: (3.15...3.35)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 12- 1- 5- 9- 8- 3

Cam sequence : - 4- 11- 10- 2- 6- 7

SD ang. spacing°CS: 0-45-60-105-120-165-
180-225-240-285-300-

345

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 12

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 12.90...13.00

Del.quantity cm3/ : 14.0...14.2

100H.: (13.7...14.4)

Dispersion cm3/ : 0.4

100H.: (0.7)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 7.3...7.5

Del.quantity cm3/ : 1.4...2.0

100H.: (1.1...2.2)

Dispersion cm3/ : 0.4

100H.: (-)

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm3/ : 140.0...142.0

1000H.: (137.5...144.5)

Dispersion cm3/ : 4.00

1000H.: (7.50)

HIGHEST RATED SPEED

Testing:

1st c-rod trav.mm : 11.90

Speed 1/min : 1055...1060

2nd c-rod trav.mm : 6.00

Speed 1/min : 1095...1105

4th speed 1/min : 1200

C-rod trav.mm : 0.00...1.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 19.1 D 3
Edition : 09.03.87
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 0 401 840 063

Injection pump
Pump designation : PE12P110A320LS830Z
EP type number : 0 411 810 033
Governor
Governor design. : RQ900PA310R
Governor no. : 0 421 801 059

CUSTOMER-SPEC. INFORMATION

Customer : DAIMLER-BENZ

Engine : OM404A

1st version kW : 368.0

TEST BENCH REQUIREMENTS

Calibrating oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Overflow
quantity min. 1/h: 150...170

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Outside diameter
x Wall thickness,
x Length mm : 6.00x1.50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3.20...3.30
: (3.15...3.35)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 12- 1- 5- 9- 8- 3
- 4- 11- 10- 2- 6- 7

C-rod trav.mm : 0.00...1.00

SD ang. spacing⁹CS: 0-45-60-105-120-165-
180-225-240-285-300-
345

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 12

BASIC SETTING

1st speed 1/mi: 850

Contr.-rod trav.mm: 14.10...14.20

Del.quantity cm³/ : 15.9...16.1

100H.: (15.6...16.3)

Dispersion cm³/ : 0.4

100H.: (0.7)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 7.6...7.8

Del.quantity cm³/ : 1.4...2.0

100H.: (1.1...2.2)

Dispersion cm³/ : 0.4

100H.: (-)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 840

Sleeve travel mm: 2.10...2.30

2nd speed 1/min: 900

Sleeve travel mm: 5.20...5.40

3rd speed 1/min: 960

Sleeve travel mm: 9.20...9.40

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 850

Del.quantity cm³/ : 159.0...161.0

1000H.: (156.5...163.5)

Dispersion cm³/ : 4.00

1000H.: (7.50)

HIGHEST RATED SPEED

Testing:

1st c-rod trav.mm : 13.10

Speed 1/min : 905...910

2nd c-rod trav.mm : 5.90

Speed 1/min : 940...950

4th speed 1/min : 1050

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 19,1 I 1

Edition : 09.03.87

Superceded :

Calibrating oil : ISO-4113

Combination no. : 0 401 840 069

Injection pump

Pump designation : PE12P110A320LS830

EP type number : 0 411 810 030

Governor

Governor design. : RQ1050PA310

Governer no. : 0 421 801 108

Customer-spec. information

Customer : DAIMLER-BENZ

Engine : OM404A

1st version kW : 407.0

Speed 1/min: 2100

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Prestroke mm : 3.20...3.30
: (3.15...3.35)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 12- 1- 5- 9- 8- 3
- 4- 11- 10- 2- 6- 7

SD ang. spacing°CS: 0-45-60-105-120-165-
180-225-240-285-300-
345

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 12

BASIC SETTING

1st speed 1/mi: 1000

Contr.-rod trav.mm: 13.70...13.80

Del.quantity cm3/ : 15.5...15.7

100H.: (15.2...15.9)

Dispersion cm3/ : 0.4

100H.: (0.7)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 7.3...7.5

Del.quantity cm3/ : 1.4...2.0

100H.: (1.1...2.2)

Dispersion cm3/ : 0.4

100H.: (-)

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1000

Del.quantity cm3/ : 155.0...157.0

1000H.: (152.5...159.5)

Dispersion cm3/ : 4.00

1000H.: (7.50)

HIGHEST RATED SPEED

Testing:

1st c-rod trav.mm : 12.70

Speed 1/min : 1055...1060

2nd c-rod trav.mm : 5.90

Speed 1/min : 1095...1105

4th speed 1/min : 1200

C-rod trav.mm : 0.00...1.00

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : FIA 25,7 A
Edition : 09.03.87
Superceeded : 10.82
Calibrating oil : ISO-4113

Combination no. : 0 401 840 701

Injection pump
Pump designation : PE12P120A920LS3809
EP type number : 0 411 820 700
Governor
Governor design. : RQV300...950PA537
Governor no. : 0 421 813 263

Customer-spec. information
Customer : IVECO-FIAT

Engine : 8297.22

1st version kW : 480.0
Speed 1/min: 1900

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 1 688 901 019

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,8

Test inj. tubing : 1 680 750 067

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x1000

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY
Test pressure, bar: 25...27

Prestroke mm : 3.50...3.60
: (3.45...3.65)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 4- 9- 8- 5- 2-
11- 10- 3- 6- 7- 12

SD ang. spacing°CS: 0-15-60-75-120-135-
180-195-240-255-300-
SD ang. spacing°CS: 315
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 12

BASIC SETTING

1st speed 1/min: 950

Contr.-rod trav.mm: 10.80...10.90

Del.quantity cm³/ : 19.1...19.3
100H.: (18.8...19.6)

Dispersion cm³/ : 0.5
100H.: (0.9)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 5.0...5.2

Del.quantity cm³/ : 2.1...2.7
100H.: (1.8...3.0)

Dispersion cm³/ : 0.8
100H.: (1.2)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300
Sleeve travel mm: 1.40...1.60
2nd speed 1/min: 450
Sleeve travel mm: 3.50...3.90
3rd speed 1/min: 800
Sleeve travel mm: 5.90...6.30
4th speed 1/min: 950
Sleeve travel mm: 7.10...7.30

SLEEVE POSITION

Control-lever position
Degree: -1
Speed 1/min: 1110
Cont.-rod travel mm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version
Speed 1/min: 950
Charge press. hPa : 700

NOS

Del.quantity cm³/ : 191.0...193.0
1000H.: (188.0...196.0)
Dispersion cm³/ : 5.00
1000H.: (9.00)

HIGHEST RATED SPEED
1st version
Control-lever
position degrees: 52...60

Testing:
1st c-rod trav.mm : 9.80
Speed 1/min : 990...1000
2nd c-rod trav.mm : 4.00
Speed 1/min : 1105...1135
4th speed 1/min : 1250
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I
Control-lever
position degrees: 7...15

Testing:
Speed 1/min : 100
C-rod trav.mm min : 6.60
Speed 1/min : 300
C-rod trav.mm : 5.00...5.20

CONSTANT REGULATION
Speed 1/min : 320...425

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 700
Contr.-rod trav.mm: 10.80...10.90

Measurement
Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 7.70...7.90
2nd pressure hPa : 260
C-rod trav.mm : 9.70...9.80
3rd pressure hPa : 200
C-rod trav.mm : 8.30...8.70

FUEL-DELIVERY CHARACTERISTICS

Charge press. hPa : -
Speed 1/min : 950
Del.quantity cm³/ : 129.0...131.0
1000H.: (126.0...134.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : MB 21,9 B 4
Edition : 12.09.86
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 0 401 840 732

Injection pump
Pump designation : PE12P120A320LS3819-
14
EP type number : 0 411 820 716
Governor
Governor design. : RQV350...1150PA493-6
Governor no. : 0 421 813 523

Customer-spec. information
Customer : DAIMLER-BENZ

Engine : OM 424 LA

1st version kW : 452.0
Speed 1/min: 2300

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Overflow
quantity min. 1/h: 150...160

Calibrating nozzle-holder
assembly : 1 688 901 019

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,8

Test inj. tubing : 1 680 750 067

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x1000

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 4.00...4.10
: (3.95...4.15)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 12- 1- 5- 9- 8- 3-
4- 11- 10- 2- 6- 7

SD ang. spacing°CS: 0-45-60-105-120-165-
180-225-240-285-300-
345

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 12

BASIC SETTING

1st speed 1/min: 1150

Contr.-rod trav.mm: 12.10...12.20

Del.quantity cm³/ : 18.0...18.2

100H.: (17.7...18.5)

Dispersion cm³/ : 0.5

100H.: (0.9)

2nd speed 1/min: 350.0

Contr.-rod trav. m: 4.8...5.0

Del.quantity cm³/ : 1.6...2.2

100H.: (1.3...2.5)

Dispersion cm³/ : 0.8

100H.: (1.2)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 350

Sleeve travel mm: 2.20...2.30

2nd speed 1/min: 510

Sleeve travel mm: 3.20...3.50

3rd speed 1/min: 1150

Sleeve travel mm: 7.50...8.80

4th speed 1/min: 1200

Sleeve travel mm: 8.90...9.10

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1180

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1150
Charge press. hPa : 700
Del.quantity cm³/ : 180.0...182.0
1000H.: (177.0...185.0)
Dispersion cm³/ : 5.00
1000H.: (9.00)

HIGHEST RATED SPEED

1st version
Control-lever
position degrees: 61...69

Testing:

1st c-rod trav.mm : 11.10
Speed 1/min : 1190...1200
2nd c-rod trav.mm : 4.00
Speed 1/min : 1235...1265
4th speed 1/min : 1350
C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 8...16

Testing:

Speed 1/min : 100
C-rod trav.mm min : 6.20
Speed 1/min : 350
C-rod trav.mm : 4.50...4.70

CONSTANT REGULATION

Speed 1/min : 400...600

compensator (LDA,ADA,ALDA)

1st version

Setting
Speed 1/min : 500
Pressure hPa : 700
Contr.-rod trav.mm: 12.10...12.20

Measurement

Speed 1/min : 500

1st pressure hPa : -
C-rod trav.mm : 10.10...10.30
2nd pressure hPa : 540
C-rod trav.mm : 11.40...11.50
3rd pressure hPa : 470
C-rod trav.mm : 10.60...10.80

SWITCH-OVER POINT

Speed 1/min : 270 (290)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 700
Speed 1/min : 650
Del.quantity cm³/ : 179.0...185.0
1000H.: (176.0...188.0)
Dispersion cm³/ : 8.00
1000H.: (12.0)
Charge press. hPa : 700
Speed 1/min : 1150
Del.quantity cm³/ : 134.0...138.0
1000H.: (131.0...141.0)
Dispersion cm³/ : 8.00
1000H.: (12.0)
Charge press. hPa : -
Speed 1/min : 500
Del.quantity cm³/ : 131.0...133.0
1000H.: (128.0...136.0)
Dispersion cm³/ : 8.00
1000H.: (12.0)

Remarks:

N09

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : KHD 19,2 A
Edition : 09.03.87
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 0 401 840 734

Injection pump
Pump designation : PE12P110A920LS3173
EP type number : 0 411 810 708
Governor
Governor design. : RQV300...107SPA746
Governor no. : 0 421 813 477

Customer-spec. information
Customer : KHD

Engine : BF12L513

1st version kW : 333.0
Speed 1/min: 2150

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 015

Outside diameter
x Wall thickness
x Length mm : 6.00X1.50X600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values ----

START OF DELIVERY

Prestroke mm : 2.80...2.90
: (2.75...2.95)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 4- 9- 8- 5- 2-

11- 10- 3- 6- 7- 12

SD ang. spacing[°]: 0-15-60-75-120-135-
180-195-240-255-300-
315

Tolerance + - ° : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1075

Contr.-rod trav.mm: 11.90...12.00

Del.quantity cm³/ : 14.8...15.2

100H.: (14.6...15.4)

Dispersion cm³/ : 0.5

100H.: (0.8)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 6.6...6.8

Del.quantity cm³/ : 1.5...2.1

100H.: (1.2...2.3)

Dispersion cm³/ : 0.7

100H.: (1.0)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 300

Sleeve travel mm: 1.30...1.40

2nd speed 1/min: 380

Sleeve travel mm: 2.30...2.70

3rd speed 1/min: 430

Sleeve travel mm: 2.80...3.30

4th speed 1/min: 700

Sleeve travel mm: 5.30...5.60

5th speed 1/min: 1120

Sleeve travel mm: 8.40...8.60

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1120

Cont.-rod trav.mmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1075

Charge press. hPa : 750

Del.quantity cm³/ : 148.0...152.0

1000H.: (146.0...154.0)

Dispersion cm³/ : 5.00
1000H.: (8.00)

HIGHEST RATED SPEED

1st version

Control-lever

position degrees: 50...58

Testing:

1st c-rod trav.mm : 10.90

Speed 1/min : 1115...1125

2nd c-rod trav.mm : 4.00

Speed 1/min : 1215...1245

4th speed 1/min : 1350

C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever

position degrees: 15...23

Testing:

Speed 1/min : 100

C-rod trav.mm min : 8.10

Speed 1/min : 300

C-rod trav.mm : 6.60...6.80

CONSTANT REGULATION

Speed 1/min : 315...465

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 450

Pressure hPa : 750

Contr.-rod trav.mm: 12.20...12.30

Measurement

Speed 1/min : 450

1st pressure hPa : -

C-rod trav.mm : 10.70...10.80

2nd pressure hPa : 410

C-rod trav.mm : 11.60...11.70

3rd pressure hPa : 350

C-rod trav.mm : 11.00...11.20

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 750

Speed 1/min : 650

Del.quantity cm³/ : 152.0...156.0

1000H.: (149.0...159.0)

Charge press. hPa : -

Speed 1/min : 450

Del. quantity cm³/ : 118.0...122.0
1000H.: (115.0...125.0)

Remarks:

| BOSCH INJ. PUMP TEST SPECIFICATIONS

| Note inst. in remarks column

| Test sheet : MB 11/8 F
| Edition : 09.03.87
| Superceeded : 10.83
| Calibrating oil : ISO-4113

| Combination no. : 0 401 846 398

| Injection pump
| Pump designation : PE6P110A720RS371
| EP type number : 0 411 816 123
| Governor
| Governor design. : RQ300/1100PA424R
| Governer no. : 0 421 801 086

| Customer-spec. information
| Customer : DAIMLER-BENZ

| Engine : OM355A

| 1st version kW : 206.0
| Speed 1/min: 2200

| TEST BENCH REQUIREMENTS

| Calibrating-oil
| inlet temp. °C : 38...42

| Overflow valve : 1 417 413 025

| Inlet press., bar : 1.50

| Overflow
| quantity min. 1/h: 100...120

| Calibrating nozzle-holder
| assembly : 0 581 343 009

| Opening
| pressure, bar : 172...175

| Test inj. tubing : 1 680 750 015

| Outside diameter
| x Wall thickness
| x Length mm : 6.00X1.50X600

| (A) Injection pump setting values
| insp. values in parentheses
| Set constant delivery quant.
| per values _____

| START OF DELIVERY

| Test pressure, bar: 25...27

Prestroke mm : 2.80...2.90
 : (2.75...2.95)
 Contr.-rod trav.mm: 9.00...12.00
 Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing[°]CS: 0-60-120-180-240-300
 Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 11.70...11.80

Del.quantity cm³/ : 16.0...16.2

100H.: (15.7...16.4)

Dispersion cm³/ : 0.4

100H.: (0.8)

2nd speed 1/min: 300.0

Contr.-rod trav. m: 5.9...6.1

Del.quantity cm³/ : 1.4...2.0

100H.: (1.1...2.2)

Dispersion cm³/ : 0.4

100H.: (0.7)

SLEEVE POSITION

Control-lever position

Degree: -2

Speed 1/min: 650

Cont.-rod travellmm: 19.20...20.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 700

Del.quantity cm³/ : 160.0...162.0

1000H.: (157.5...164.5)

Dispersion cm³/ : 4.00

1000H.: (8.00)

HIGHEST RATED SPEED

Setting point:

Speed 1/min : 650

Contr.-rod trav.mm: 20.0

Testing:

1st c-rod trav.mm : 10.70

Speed 1/min : 1140...1150

2nd c-rod trav.mm : 4.00

Speed 1/min : 1190...1220

4th speed 1/min : 1350
 C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I
 Setting point w/out aux. spring
 Speed 1/min : 300
 Contr.-rod trav.mm: 6.2

Testing:

Speed 1/min : 100
 C-rod trav.mm min : 8.20
 Speed 1/min : 300
 C-rod trav.mm : 6.10...6.30
 C-rod trav.mm : 2.00
 Speed 1/min : 410...450

TORQUE CONTROL

Dimension a mm : -
 Torque-control curve - 1st version
 1st speed 1/min : 1100
 C-rod trav.mm : 11.70...11.80
 2nd speed 1/min : 650
 C-rod trav.mm : 11.70...11.90

compensator (LDA,ADA,ALDA)

1st version

Setting
 Speed 1/min : 500
 Pressure hPa : 700
 Contr.-rod trav.mm: 11.70...11.80

Measurement

Speed 1/min : 500
 1st pressure hPa : -
 C-rod trav.mm : 11.00...11.10
 2nd pressure hPa : 390
 C-rod trav.mm : 11.50...11.60
 3rd pressure hPa : 350
 C-rod trav.mm : 11.20...11.30

SWITCH-OVER POINT

Speed 1/min : 220 (240)

FUEL-DELIVERY CHARACTERISTICS

1st version
 Charge press. hPa : 700
 Speed 1/min : 600
 Del.quantity cm³/ : 156.0...160.0
 1000H.: (153.0...163.0)
 Dispersion cm³/ : 6.00
 1000H.: (9.00)
 Charge press. hPa : -
 Speed 1/min : 500
 Del.quantity cm³/ : 135.0...137.0
 1000H.: (132.0...140.0)

Dispersion cm³/ : 6.00
1000H.: (9.00)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : PEN 7.0 K 1
Edition : 12.09.86
Superceeded : -
Calibrating oil : ISO-4113

Combination no. : 0 401 846 455

Injection pump
Pump designation : PE6P110A320RS367Y
EP type number : 0 411 816 132
Governor
Governor design. : RQV250...1000PA394
Governor no. : 0 421 813 241

Customer-spec. information
Customer : VOLVO-PENTA

Engine : TMD 70 C

1st version kW : 154.5
Speed 1/min: 2000

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 343 009

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 004

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x600

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values _____

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 3.00...3.10
: (2.95...3.15)
Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

LOWEST RATED SPEED I
Control-lever
position degrees: 8...16

SD ang. spacing[°]CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

Testing:
Speed 1/min : 100
C-rod trav.mm min : 6.50
Speed 1/min : 250
C-rod trav.mm : 4.70...4.80

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 900

Contr.-rod trav.mm: ?

Remarks:

Del.quantity cm³/ : 8.5...8.7

100H.: (8.2...9.0)

Dispersion cm³/ : 0.4

100H.: (0.8)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 4.9...5.1

Del.quantity cm³/ : 1.6...2.0

100H.: (1.3...2.2)

Dispersion cm³/ : 0.3

100H.: (0.6)

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1050

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 900

Charge press. hPa : 700

Del.quantity cm³/ : 85.0...87.0

1000H.: (82.0...90.0)

Dispersion cm³/ : 4.00

1000H.: (8.00)

HIGHEST RATED SPEED

Setting point:

Speed 1/min : 1050

Contr.-rod trav.mm: 16.5

Testing:

1st c-rod trav.mm : ?

Speed 1/min : 1050...1060

2nd c-rod trav.mm : 4.00

Speed 1/min : 1130...1150

4th speed 1/min : 1250

C-rod trav.mm : 0.00...1.00

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : RVI 8,8 A

Edition : 12.09.86

Superceeded : 4.81

Calibrating oil : ISO-4113

Combination no. : 0 401 846 460

Injection pump

Pump designation : PE6P120A320RS436

EP type number : 0 411 826 118

Governor

Governor design. : RQ750PA595

Governor no. : 0 421 801 148

Customer-spec. information

Customer : RVI

Engine : MID (S) 062030

TEST BENCH REQUIREMENTS

Calibrating-oil

inlet temp. °C : 38...42

Overflow valve

: 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 0 681 443 022

Opening
pressure, bar : 172...175

Test inj. tubing : 1 680 750 060

Outside diameter
x Wall thickness
x Length mm : 8.00x2.00x1000

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.80...2.90

: (2.75...2.95)

Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 10.00...11.00

BASIC SETTING

1st speed 1/mi: 700

Contr.-rod trav.mm: 10.00...10.10

Del.quantity cm3/ : 17.2...17.6

100H.: (16.9...17.9)

Dispersion cm3/ : 0.5

100H.: (0.9)

2nd speed 1/min: 250.0

Contr.-rod trav. m: 5.4...5.6

Del.quantity cm3/ : 1.5...2.1

100H.: (1.2...2.4)

Dispersion cm3/ : 0.8

100H.: (1.2)

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 700

Del.quantity cm3/ : 172.0...176.0

1000H.: (169.0...179.0)

Dispersion cm3/ : 5.00

1000H.: (9.00)

HIGHEST RATED SPEED

Testing:

1st c-rod trav.mm : 9.00

Speed 1/min : 750...755

2nd c-rod trav.mm : 4.00

Speed 1/min : 776...789

4th speed 1/min : 900

C-rod trav.mm : 0.00...1.00

Remarks:

| BOSCH INJ. PUMP TEST SPECIFICATIONS

| Note inst. in remarks column

| Test sheet : BET 8,8 A 2
| Edition : 12.09.86
| Superceeded : 7.84
| Calibrating oil : ISO-4113

| Combination no. : 0 401 846 481

| Injection pump
| Pump designation : PE6P120A320RS383
| EP type number : 0 411 826 109
| Governor
| Governor design. : RQV275...1100PA425-1
| Governer no. : 0 421 813 369

| Customer-spec. information
| Customer : RVI

| Engine : MIDS 062030

| TEST BENCH REQUIREMENTS

| Calibrating-oil
| inlet temp. °C : 38...42

| Overflow valve : 1 417 413 025

| Inlet press., bar : 1.50

| Calibrating nozzle-holder
| assembly : 1 688 901 019

| Opening
| pressure, bar : 207...210

| Perforated-plate
| diameter mm : 0,8

| Test inj. tubing : 1 680 750 067

| Outside diameter
| x Wall thickness
| x Length mm : 6.00X1.50X1000

| (A) Injection pump setting values
| Insp. values in parentheses
| Set constant delivery quant.
| per values -----

| START OF DELIVERY

| Test pressure, bar : 25...27

| Prestroke mm : 2.80...2.90
| : (2.75...2.95)

| Contr.-rod trav.mm: 9.00...12.00

Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing°CS: 0-60-120-180-240-300
Tolerance + - " : 0.50 (0.75)

SD mark cyl. no. : 1

START OF DELIVERY DIFFERENCE

betw.c-rod trav.mm: 10.00...11.00

BASIC SETTING

1st speed 1/min: 1100

Contr.-rod trav.mm: 14.20...14.30

Del.quantity cm³/ : 15.1...15.3

100H.: (14.8...15.6)

Dispersion cm³/ : 0.5

100H.: (0.9)

2nd speed 1/min: 275.0

Contr.-rod trav. m: 8.6...8.8

Del.quantity cm³/ : 1.3...1.9

100H.: (1.0...2.2)

Dispersion cm³/ : 0.8

100H.: (1.2)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 275

Sleeve travel mm: 1.20...1.30

2nd speed 1/min: 450

Sleeve travel mm: 3.30...4.00

3rd speed 1/min: 800

Sleeve travel mm: 6.10...6.30

4th speed 1/min: 1100

Sleeve travel mm: 7.90...8.00

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1170

Cont.-rod travellmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1100

Charge press. hPa : 700

Del.quantity cm³/ : 151.0...153.0

1000H.: (148.0...156.0)

Dispersion cm³/ : 5.00
1000H.: (9.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 52...68

Setting point:

Speed 1/min : 1170

Contr.-rod trav.mm: 16.5

Testing:

1st c-rod trav.mm : 13.20

Speed 1/min : 1155...1165

2nd c-rod trav.mm : 4.00

Speed 1/min : 1315...1345

Speed 1/min : 1450

4th speed 1/min : 0.00...1.00

LOWEST RATED SPEED I

Control-lever

position degrees: 7...15

Testing:

Speed 1/min : 200

C-rod trav.mm min : 8.50

Speed 1/min : 275

C-rod trav.mm : 5.40...5.60

CONSTANT REGULATION

Speed 1/min : 275...365

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 700

Contr.-rod trav.mm: 14.20...14.30

Measurement

Speed 1/min : 500

1st pressure hPa : -

C-rod trav.mm : 12.40...12.50

2nd pressure hPa : 230

C-rod trav.mm : 13.70...13.80

3rd pressure hPa : 180

C-rod trav.mm : 12.80...13.00

SWITCH-OVER POINT

Speed 1/min : 195 (215)

FUEL-DELIVERY CHARACTERISTICS

Charge press. hPa : -

Speed 1/min : 500

Del. quantity cm³/ : 87.0...89.0
1000H.: (84.0...92.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : BET 8,8 A 1
Edition : 12.09.86
Superceeded : 10.83
Calibrating oil : ISO-4113

Combination no. : 0 401 846 488

Injection pump
Pump designation : PE6P120A320RS383
EP type number : 0 411 826 109
Governor
Governor design. : RQV275...1200PA425-2
Governor no. : 0 421 813 403

Customer-spec. information
Customer : RVI

Engine : MIDS 062030

1st version kW : 165.5
Speed 1/min: 2400

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 1 688 901 019

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,8

Test inj. tubing : 1 680 750 067

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x1000

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 2.80...2.90
: (2.75...2.95)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing⁰CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/mi: 1200

Contr.-rod trav.mm: 13.90...14.0

Del.quantity cm³/ : 14.9...15.1

100H.: (14.6...15.4)

Dispersion cm³/ : 0.5

100H.: (0.9)

2nd speed 1/min: 275.0

Contr.-rod trav. m: 4.70...4.90

Del.quantity cm³/ : 0.8...1.4

100H.: (0.5...1.7)

Dispersion cm³/ : 0.8

100H.: (1.2)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 275

Sleeve travel mm: 1.10...1.20

2nd speed 1/min: 450

Sleeve travel mm: 3.40...3.80

3rd speed 1/min: 850

Sleeve travel mm: 5.40...5.60

4th speed 1/min: 1200

Sleeve travel mm: 7.60...7.70

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1310

Cont.-rod travelmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Charge press. hPa : 700

Del.quantity cm³/ : 149.0...151.0

1000H.: (146.0...154.0)

Dispersion cm³/ : 5.00
1000H.: (9.00)

HIGHEST RATED SPEED

1st version

Control-lever
position degrees: 60...68

Testing:

1st c-rod trav.mm : 12.90

Speed 1/min : 1245...1255

2nd c-rod trav.mm : 4.00

Speed 1/min : 1395...1425

4th speed 1/min : 1550

C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 5...13

Testing:

Speed 1/min : 200

C-rod trav.mm min : 7.80

Speed 1/min : 275

C-rod trav.mm : 4.70...4.90

CONSTANT REGULATION

Speed 1/min : 275...380

compensator (LDA,ADA,ALDA)

1st version

Setting

Speed 1/min : 500

Pressure hPa : 700

Contr.-rod trav.mm: 13.90...14.00

Measurement

Speed 1/min : 500

1st pressure hPa : -

C-rod trav.mm : 12.20...12.30

2nd pressure hPa : 225

C-rod trav.mm : 13.40...13.50

3rd pressure hPa : 185

C-rod trav.mm : 12.50...12.70

SWITCH-OVER POINT

Speed 1/min : 195 (215)

FUEL-DELIVERY CHARACTERISTICS

1st version

Charge press. hPa : 700

Speed 1/min : 700

Del.quantity cm³/ : 143.0...149.0

1000H.: (140.0...152.0)

Charge press. hPa : -

Speed 1/min : 500

Del.quantity cm³/ : 90.0...92.0
1000H.: (87.0...95.0)

Remarks:

BOSCH INJ. PUMP TEST SPECIFICATIONS

Note inst. in remarks column

Test sheet : RVI 9,8 B 2
Edition : 12.09.86
Superceeded : 11.85
Calibrating oil : ISO-4113

Combination no. : 0 401 846 497

Injection pump
Pump designation : PE6P120A320RS438-1
EP type number : 0 411 826 133
Governor
Governor design. : RQV275...1200PA648
Governor no. : 0 421 813 345

Customer-spec. information
Customer : RVI

Engine : MIDS062030

1st version kW : 150.0
Speed 1/min: 2400

TEST BENCH REQUIREMENTS

Calibrating-oil
inlet temp. °C : 38...42

Overflow valve : 1 417 413 025

Inlet press., bar : 1.50

Calibrating nozzle-holder
assembly : 1 688 901 019

Opening
pressure, bar : 207...210

Perforated-plate
diameter mm : 0,8

Test inj. tubing : 1 680 750 067

Outside diameter
x Wall thickness
x Length mm : 6.00x1.50x1000

(A) Injection pump setting values
Insp. values in parentheses
Set constant delivery quant.
per values -----

START OF DELIVERY

Test pressure, bar: 25...27

Prestroke mm : 3.50...3.60
: (3.45...3.65)
Contr.-rod trav.mm: 9.00...12.00
Cam sequence : 1- 5- 3- 6- 2- 4

SD ang. spacing[°]CS: 0-60-120-180-240-300
Tolerance + - : 0.50 (0.75)

SD mark cyl. no. : 1

BASIC SETTING

1st speed 1/min: 1200

Contr.-rod trav.mm: 10.20...10.30

Del.quantity cm³/ : 13.3...13.5

100H.: (13.0...13.8)

Dispersion cm³/ : 0.5

100H.: (0.9)

2nd speed 1/min: 275,0

Contr.-rod trav. m: 6.40...6.60

Del.quantity cm³/ : 1.5...2.1

100H.: (1.2...2.4)

Dispersion cm³/ : 0.8

100H.: (1.2)

(B) Setting of injection pump with externally-mounted governor

SLEEVE TRAVELS

1st speed 1/min: 275

Sleeve travel mm: 1.20...1.40

2nd speed 1/min: 450

Sleeve travel mm: 3.30...4.00

3rd speed 1/min: 850

Sleeve travel mm: 5.90...6.20

4th speed 1/min: 1200

Sleeve travel mm: 8.20...8.40

SLEEVE POSITION

Control-lever position

Degree: -1

Speed 1/min: 1230

Cont.-rod travellmm: 15.20...17.80

FULL-LOAD DELIV. AT FULL-LOAD STOP

1st version

Speed 1/min: 1200

Del.quantity cm³/ : 133.0...135.0

1000H.: (130.0...138.0)

Dispersion cm³/ : 5.00

1000H.: (9.00)

HIGHEST RATED SPEED
1st version
Control-lever
position degrees: 61...69

Testing:

1st c-rod trav.mm : 9.20

Speed 1/min : 1255...1265

2nd c-rod trav.mm : 3.90

Speed 1/min : 1355...1385

4th speed 1/min : 1500

C-rod trav.mm : 0.00...1.00

LOWEST RATED SPEED I

Control-lever
position degrees: 8...16

Testing:

Speed 1/min : 200

C-rod trav.mm min : 8.00

Speed 1/min : 275

C-rod trav.mm : 4.90...5.10

CONSTANT REGULATION

Speed 1/min : 275...360

SWITCH-OVER POINT

Speed 1/min : 195 (215)

FUEL-DELIVERY CHARACTERISTICS

Speed 1/min : 750

Del.quantity cm³/ : 116.0...122.0

1000H.: (113.0...125.0)

Remarks: